ATCO Gas

Decision 2006-098 (Errata)
Retailer Service and Gas Utilities Act Compliance Phase 2 Part B
Customer Account Balancing and Load Balancing

November 7, 2006

Alberta Energy and Utilities Board

ALBERTA ENERGY AND UTILITIES BOARD
Decision 2006-098 (Errata): ATCO Gas
Decision 2006-098 (Errata) Retailer Service and Gas Utilities Act Compliance Phase 2 Part B Customer Account Balancing and Load Balancing
Application No. 1411635

November 7, 2006

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1 INTRODUCTION

The Alberta Energy and Utilities Board (Board) issued Decision 2006-098 which dealt with Application 1411635 from ATCO Gas, a division of ATCO Gas and Pipelines Ltd. (ATCO Gas) on October 10, 2006. Decision 2006-098 dealt with the results of a litigated process associated with customer account balancing and load balancing from Phase 2 Part B of the Retailer Service and Gas Utilities Act Compliance process.

Section 6 of Decision 2006-098 addressed approvals related to the costs associated with a Daily Forecasting and Settlement System (DFSS). In that decision, the Board provided the following approval:[1]

> Accordingly, the Board approves the total capital forecast of $2.012 million. Given that the DFSS is untested and will not be in service in 2006, the Board directs ATCO Gas to treat the 2006 costs as construction work in progress and record an allowance for funds used during construction (AFUDC) until the year of implementation of the DFSS. Based on the direction in Section 7 below, the Board expects the implementation date to be November 1, 2007 and therefore approves the ATCO Gas request to revise the 2007 revenue requirement to reflect the actual capital costs to a maximum of $2.012 million plus AFUDC in determination of the rate base. If as a result of the testing process discussed below, the forecast costs are in excess of this amount, the Board directs ATCO Gas to separately document by way of a business case the reasons for any additional expenditures before the Board will consider the possible inclusion of such costs in the rate base for future GRA test periods.

In a letter of October 12, 2006, ATCO Gas requested clarification of the Board's Decision regarding the treatment of operating costs in the amount of $76,000 per month that had been proposed by ATCO Gas in association with the DFSS capital costs of $2.012 million.

The Board responded to ATCO Gas in a letter of October 19, 2006. In that letter, the Board indicated the following.

> The Board had intended that the operating costs would be reviewed in either the compliance process associated with Decision 2006-004 (the ATCO Gas 2005-2007 Phase I GRA) or in the process associated with Decision 2006-098, following a determination regarding the capital costs of the DFSS. Given that ATCO Gas' second

[1] Reference Decision 2006-098, page 37

> compliance filing to the GRA has been filed prior to the issuance of Decision 2006-098 and the evidence in respect of the amount of the operating costs was considered in the Board's deliberations in respect of Decision 2006-098, which approved the DFSS capital costs, it would appear that in order to dovetail these two processes in the most expeditious manner, the operating costs should be dealt with through an Errata to Decision 2006-098. The Board does consider the operating costs to be prudent and that they should be recovered.
>
> In this regard, the Board considers that the costs of $76,000 per month would properly be treated as testing and commissioning costs to be capitalized, in addition to the $2.012 million of costs that the Board has already approved, up to the time that DFSS capital costs are added to rate base. To assist the Board in this respect, the Board requests ATCO Gas to provide schedules to the Board summarizing the year-by-year financial implications for the 2005-2007 GRA period by October 31, 2006.

On October 31, 2006, ATCO Gas provided the requested schedule of 2005-2007 revenue requirement impacts. On November 1, 2006 ATCO Gas filed a correction to the revenue requirement schedule, which is attached as Appendix 1. The Board notes from the ATCO Gas filing that there would be no revenue requirement impact in 2005 or 2006, and that the net 2007 revenue requirement impact would be a credit to ATCO Gas South customers of $110,000 and a credit to ATCO Gas North customers of $113,000.

The Board approves these 2005-2007 revenue requirement adjustments and directs ATCO Gas to incorporate them into the next placeholder finalization or refiling that may be required in association with the 2005-2007 GRA.

2 ORDER

IT IS HEREBY ORDERED THAT:

(1) ATCO Gas incorporate the revenue requirement adjustments associated with 2007 in the net amount of a credit to ATCO Gas South customers of $110,000 and a credit to ATCO Gas North customers of $113,000 into the next placeholder finalization or refilings that may be required in association with the 2005-2007 GRA.

Dated in Calgary, Alberta on November 7, 2006.

ALBERTA ENERGY AND UTILITIES BOARD

(original signed by)

J. I. Douglas, FCA
Presiding Member

(original signed by)

B. T. McManus, Q.C.
Member

(original signed by)

C. Dahl Rees
Acting Member

APPENDIX 1 – DFSS IMPACT ON REVENUE REQUIREMENT

Appendix 1 DFSS
Impact on Revenue R

(consists of 1 page)

DFSS Impact on Revenue Requirement

ATCO Gas (South)

	Investment	Forecast Revenue Requirement ($000) 2005	2006	2007
Capital	1,548			
Rate Base		-	-	761
Return on Rate Base		0.000%	0.000%	7.718%
Utility Income		0	0	59
Annual Operating Expenses		0	0	76
Tax		0	0	(271)
Depreciation (10 yr)		0	0	26
Total Revenue Requirement Impact		**0**	**0**	**(110)**
Income Tax				
Related to CCA		0	0	(285)
Related to Large Corporation Tax		0	0	1
Related to Utility Income		0	0	13
		0	0	(271)

Change to Capital Investment

Investment as per filing (see CAL-AG-27(a)(i))	1,005
2006 testing & commissioning costs	76
Total 2006 Investment	1,081
Additional 2006 AFUDC	43
Total 2006 Capital	1,124
2007 AFUDC	44
2007 testing & commissioning costs	380
Total Capital Costs	**1,548**

ATCO Gas (North)

	Investment	2005	2006	2007
Capital	1,548			
Rate Base		-	-	761
Return on Rate Base		0.000%	0.000%	7.511%
Utility Income		0	0	57
Annual Operating Expenses		0	0	76
Tax		0	0	(272)
Depreciation (10 yr)		0	0	26
Total Revenue Requirement Impact		**0**	**0**	**(113)**
Income Tax				
Related to CCA		0	0	(286)
Related to Large Corporation Tax		0	0	1
Related to Utility Income		0	0	13
		0	0	(272)

Investment as per filing (see CAL-AG-27(a)(i))	1,007
2006 testing & commissioning costs	76
Total 2006 Investment	1,083
2006 AFUDC	42
Total 2006 Capital	1,125
2007 AFUDC	43
2007 testing & commissioning costs	380
Total Capital Costs	**1,548**

ATCO Gas

	Investment	2005	2006	2007
Capital	3,096			
Utility Income		0	0	116
Annual Operating Expenses		0	0	152
Tax		0	0	(543)
Depreciation (10 yr)		0	0	52
Total Revenue Requirement Impact		**0**	**0**	**(223)**

ATCO Gas

Retailer Service and Gas Utilities Act Compliance Phase 2 Part B Customer Account Balancing and Load Balancing

October 10, 2006

Alberta Energy and Utilities Board

ALBERTA ENERGY AND UTILITIES BOARD
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1 INTRODUCTION

The Alberta Energy and Utilities Board (Board) received an application (Application) from ATCO Gas, a division of ATCO Gas and Pipelines Ltd. (ATCO Gas) on July 29, 2005 dealing with Phase 2 Part B of the Retailer Service and Gas Utilities Act Compliance process. This was in response to directions from the Board in a letter of July 26, 2005, which was issued in conjunction with Decision 2005-081.[1] In the Application ATCO Gas proposed a consultative process to advance topics related to customer account balancing and load balancing procedures using modules.

The Board approved advancing the Application using the consultative process with provision for Board adjudication of any issues that could not be reconciled amongst the interested parties. The consultative process was unable to reconcile issues related to customer account balancing, therefore the Board established a litigated process to deal with customer account balancing and load balancing issues, which are the subjects of this Decision. The Board anticipates that the consultative process will continue following this Decision to further advance implementation details for the Retailer Service and Gas Utilities Act Compliance process.

The Division of the Board assigned to this Application was Ian Douglas (chairman), Brad McManus and Carolyn Dahl Rees. A hearing was held in Calgary from June 6-9, 2006. Written argument and reply argument were received on June 28 and July 12, 2006, respectively.

The Board considers that the record for this portion of the Application closed on July 12, 2006 with receipt of written reply argument from interested parties.

2 BACKGROUND

The Application flows from a compliance application which was first initiated with ATCO Gas's Application No. 1308709, ATCO Gas Retailer Service and Gas Utilities Act Compliance (the Original Application) which was filed with the Board on July 25, 2003. The Original Application was filed in response to amendments to the Gas Utilities Act, R.S.A. 2000, c.G-5 (GUA) as well

[1] Decision 2005-081 ATCO Gas Retailer Service and Gas Utilities Act Compliance Phase II Part A (Application 1380942) was issued July 26, 2005 and dealt with Board approval for the separation of the load balancing function from the DSP, and shifting the cost burden for load balancing from Default Supply Provider customers to all end use customers and identified that the future process for the balance of the application would be dealt with in an associated Board letter.

as the introduction of new regulations under the GUA. The Board established a process to review the Original Application in two phases. Phase 1 would deal with interim matters related to the Terms & Conditions (T&Cs) proposals, as well as the continuation of the Rate 11/13 processes with respect to load balancing. Phase 2 would deal with final approval of the T&Cs, load balancing and load settlement issues.

The Phase 1 issues were addressed in Decision 2003-102.[2] That decision also provided direction to ATCO Gas to address, jointly with ATCO Pipelines, an application with respect to SCADA facilities between ATCO Pipelines and ATCO Gas. ATCO had indicated that these facilities would be required to provide the data necessary for load balancing the system which was to be considered in the Phase 2 process. That SCADA application was approved by the Board in Decision 2004-078.[3]

Phase 2 of the ATCO Gas Retailer Service and Gas Utilities Act Compliance Application was subsequently divided between Part A and Part B. Phase 2 Part A was to consider the principle of separating the load balancing function from the Default Supply Provider (DSP) and shifting the cost burden for load balancing from DSP customers to all end use customers. Phase 2 Part B was to deal with account balancing and load balancing directly.

Decision 2005-081 dealt with Phase 2 Part A. In that Decision, the Board approved the conceptual separation of the load balancing function from the DSP and shifting the cost burden for load balancing from DSP customers to all end use customers.

On July 26, 2005, the Board issued a letter which established a process to advance Phase 2 Part B. The Application dealing with Phase 2 Part B was received by the Board on July 29, 2005. In the Application ATCO Gas proposed a consultative process to advance topics using modules. In August 2005, the Board solicited input from interested parties respecting the modules and process.

In a letter of October 3, 2005, the Board provided direction with respect to the potential for overlap between the Application and the ATCO Gas South 2005/2006 Carbon Storage Plan Part 1 Module (Carbon Part 1 Module) associated with Application No. 1357130, to the extent both applications could involve a consideration of the potential use of the Carbon storage facility in connection with load balancing of the ATCO Gas system. The Board concluded that, in the interests of efficiency and completeness, it would be appropriate for the issues related to load balancing, including the use of physical storage, to be assessed through a single process within this Application.

The present Phase 2 Part B process was established to examine customer account balancing, load balancing and load settlement systems in a comprehensive fashion. The Board concluded that customer account balancing and load balancing processes are inter-related given that the procedures and tolerances associated with customer account balancing will impact the quantity of gas required for load balancing purposes. Further, the Board considered that it is important to ensure that the load balancing process established will be reliable, cost-effective and integrated with customer account balancing.

[2] ATCO Gas North and South Retailer Service and Gas Utilities Act Compliance - Phase 1 (Application 1308709), dated December 22, 2003

[3] ATCO Gas and ATCO Pipelines SCADA Project (Application 1308709), dated: September 17, 2004

In the October 3, 2005 letter, the Board added a module addressing load balancing issues and established the expected content for each of the modules. The modules were planned for collaborative discussion with the exception of the load balancing module, which was planned to be litigated due to the anticipated polarized views related to the potential use of storage for load balancing.

The Board also indicated in its letter of October 3, 2005 that any party could apply to the Board for a determination regarding failure of parties to reach consensus on any issue within the collaborative modules. Pending the resolution of any issue, the consultative discussions would resume.

ATCO Gas conducted a consultative process to discuss issues related to customer account balancing, but was unable to reach resolution among parties with respect to whether the time period for customer account balancing would most appropriately be on a daily basis, as proposed by ATCO Gas, or on a monthly basis. Consequently, ATCO Gas submitted a request to the Board on November 23, 2005 to resolve the customer account balancing issues in relation to a daily versus monthly customer account balancing process. ATCO Gas also proposed modifications to the content of the modules including the addition of an emerging issue of whether customer account imbalances ought to be settled with gas in-kind or financially.

The Board solicited comments from interested parties and by letter dated December 22, 2005 the Board determined to combine Module 1 on customer account balancing and Module 2 on load balancing, into a single litigated proceeding. The Board also agreed to permit the inclusion of the issues related to scope and cost of the Daily Forecasting and Settlement System (DFSS) into the litigated Module 1/Module 2 process. The issue respecting financial versus in-kind settlement was also included in the overall process. The Board determined a process and hearing schedule in that letter. The December 22, 2005 Board letter is attached as Appendix 5 of this Decision.

The modules and their contents were also updated on December 22, 2005 with the modules summarized as follows:

Module 1 – Customer Account Balancing Fundamentals
Module 2 – Load Balancing
Module 3 – Load Settlement Information Systems
Module 4 – Procedural Documentation
Module 5 – Phase 2 Part B Application

This Decision will address Modules 1 and 2, with respect to customer account balancing and load balancing for ATCO Gas. The Board's expectation has been that subsequent to this decision for Modules 1 and 2, the remaining modules, including testing relating to matters dealt with in this decision, would be addressed through resumption of the consultative process.

With respect to load balancing, relevant material may have been filed in prior proceedings. The Board considers that any such material filed in any of:

- Application No. 1357130, including materials related to the Carbon Preliminary Questions Module and the Carbon Part 1 Module;
- the Retailer Service and Gas Utilities Act Compliance Phase 1 process; and

- the Retailer Service and Gas Utilities Act Compliance Phase 2 Part A process,

form part of the record of this proceeding even if they are not expressly referenced on the exhibit list of this proceeding.

In its evidence filed on February 3, 2006, ATCO Gas clarified that its Application was seeking the Board's approval that:[4]

Load Balancing Approvals

- load balancing purchases/sales be accorded deferral account treatment in a Load Balancing Deferral Account ("LBDA") (see Application section 4.6);
- the format and contents of the Load Balancing Rate Rider ("LBRR") be as shown in Attachment 4 of the Application; and
- account imbalance purchases/sales be settled with the LBDA (see Application section 6).

Account Balancing Approvals

- each retailer, self-retailer and Default Supply Provider (collectively referred to herein as "retailer") account contain the components noted below, with the imbalance determined daily using the following formula (see Application section 5.3):

  imbalance (GJ) = daily receipt (GJ) - daily delivery (GJ) - daily Rider D recovery (GJ) - daily imbalance purchase (GJ) + daily imbalance sale (GJ) + daily adjustment (GJ);where:
  - Rider D recovery means the recovery of unaccounted for gas which is calculated as Rider D percent times the delivery
  - receipt means net gas supply nominated into the account on that day;
  - delivery means backcast consumption which is the sum of consumption for all sites enrolled with the retailer on that day;
  - imbalance purchases and imbalance sales means the energy amount outside the ±imbalance window removed from or added to the account respectively, rounded to the nearest GJ;
  - adjustments means any variance attributable to a previous period which is brought forward into the current day and includes:
    - the previous daily account imbalance,
    - the daily allocation of the prior month(s) backcast/settlement variance
    - the daily allocation of any other appropriate energy adjustment(s) applicable to the account (for example, adjustment to measurement(s)),
- prior month(s) adjustments be included in the retailer's account(s) in the first month following the month in which they have been determined and that they be worked off equally each day in the month, with any required correction for rounding included in the last day of the month (see Application section 5.3);

[4] ATCO Gas Evidence of February 3, 2006, page 9

- the time period used to determine the imbalance in retailer's account(s) be the gas day that is accepted for use by the natural gas industry within the Province of Alberta (see Application section 5.3);
- the imbalance window percentage be established as ±5% of daily account backcast delivery (section Application 5.3), with the provision of a minimum daily energy imbalance window of ±500 GJ/d for accounts where the daily delivery is equal to or less than 5,000 GJ/d and a minimum of ±1,000 GJ/d for accounts where daily delivery is greater than 5,000 GJ/d (see Application section 5.6);
- each day, the daily account imbalance energy amounts outside the nearest account daily imbalance window boundary, calculated by multiplying the daily backcast by the ±imbalance window percentage, be automatically removed from, by imbalance purchase, or added to, by imbalance sale, the retailer's account(s) and settled financially at a purchase price of 75% of the Daily Index and sale price of 130% of the Daily Index for that day (see Application section 5.5);
- the Daily Forecasting and Settlement System (DFSS) be approved for inclusion in rate base commencing in the year 2006 for the purpose of obtaining test data and assessing model accuracy as well as other functions the system will be used for (see Application section 8); and
- ATCO Gas be allowed to adjust its 2006 and 2007 GRA revenue requirement forecast to reflect the inclusion of DFSS in rate base commencing in the year 2006 (see Application section 7).

3 ISSUES

In general, the Board considers that there are two primary issues and a number of secondary issues to be addressed in this Decision. The first primary issue relates to the most appropriate time period for customer account balancing. The second primary issue involves the concept of physically load balancing the ATCO Gas system in conjunction with the associated administrative procedures.

The Board considers that it is reasonable to first examine customer account balancing to assess the merits of differing time periods. The time period selected for customer account balancing has an impact on the quantity of gas required for load balancing the ATCO Gas system. For example, daily customer account balancing would directionally minimize the amount of gas required for load balancing, whereas monthly customer account balancing would directionally increase the load balancing quantity of gas required. Therefore, the Board believes that customer account balancing and load balancing are inextricably linked.

Before assessing details of customer account balancing, load balancing and other issues, the Board will examine general definitions and related background.

4 GENERAL DEFINITIONS, LEGISLATIVE FRAMEWORK AND BACKGROUND

Alberta Regulation 186/2003, the Roles, Relationships and Responsibilities Regulation, (R3 Regulation) provides the following functions of a gas distributor; and of a retailer or default supply provider, that the Board considers to be relevant to this Application:

> **3** A gas distributor shall not carry out any function required or permitted by the Act or this Regulation to be carried out by a retailer except
>
> (a) when a gas distributor is authorized to bill customers pursuant to section 2 of the Natural Gas Billing Regulation, or
>
> (b) in respect of gas services provided under a default rate tariff when the gas distributor acts as a default supply provider to customers pursuant to the *Default Gas Supply Regulation*.
>
> **4(1)** A gas distributor must do the following:
>
> (a) provide gas distribution service that is not unduly discriminatory;
>
> (b) make decisions about building, upgrading and improving the gas distribution system for the purpose of providing safe, reliable and economic delivery of gas to customers in the service area served by the gas distribution system;
>
> (c) arrange for adequate upstream transmission capacity for the purposes of clause (b);
>
> (d) operate and maintain the gas distribution system in a safe and reliable manner;
>
> (e) carry out gas distribution tariff billing for gas distribution service under the gas distributor's approved gas distribution tariff;
>
> (f) connect and disconnect customers in accordance with the gas distributor's approved gas distribution tariff;
>
> (g) perform metering, including verifying meter readings and verifying accuracy of meters;
>
> (h) maintain information systems relating to the consumption of gas by customers;
>
> (i) perform load balancing for the gas distribution system;
>
> (j) perform functions that a settlement system code requires a gas distributor to perform;

(k) distribute public safety information;

(l) provide to a retailer or the gas distributor's default supply provider sufficient, accurate and timely information about the retailer's or default supply provider's customers, including metering information about the gas consumed by those customers, in order to enable the retailer or default supply provider to bill and to respond to inquiries and complaints from customers concerning billing for gas services;

(m) act as a default supply provider to customers who pay a default rate for gas;

(n) respond to inquiries and complaints from customers respecting gas distribution service;

(o) if a customer makes an inquiry related to the functions of retailers or default supply providers, direct the customer to the customer's retailer or default supply provider;

(p) on the request of a customer, direct the customer to a source where the customer may obtain the current list of licensed retailers maintained in accordance with the *Fair Trading Act* and the regulations made under that Act.

…

(3) A gas distributor is entitled to recover in its tariffs the prudent costs as determined by the Board that are incurred by the gas distributor to meet the requirements of subsection (1).

…

5(1) Retailers and default supply providers must do the following:

(a) provide gas services to their customers;

…

(d) acquire gas associated with gas distribution system losses;

Further, the GUA provides the following:

…

Definitions

28 In this Part,

…

(d) "default supply provider" means a gas distributor, or a person authorized by a gas distributor, who provides gas services to customers pursuant to a default rate tariff;

(e) "gas distribution service" means the service required to transport gas to customers by means of a gas distribution system, and includes any services the gas distributor is required to provide by the Board or is required to provide under this Act or the regulations;

(f) "gas distribution system" means a gas utility that delivers gas to customers through a system of pipelines, works, plant and equipment that is primarily a low pressure system;

(g) "gas distribution tariff" means the rates, tolls or charges fixed by the Board, and the terms and conditions fixed by the Board, for gas distribution service provided by a gas distributor;

(h) "gas distributor" means the owner, operator, manager or lessee of a gas distribution system;

(i) "gas services" means

(i) the gas that is provided and delivered, and

(ii) the services associated with the provision and delivery of the gas, including

(A) arranging for the exchange or purchase of the gas,

(B) making financial arrangements to manage the financial risk associated with the price of gas,

(C) arranging for gas distribution service,

(D) arranging for delivery of gas to the gas distributor's specified receipt point or points,

(E) storage,

(F) billing, collection and responding to customer billing inquiries,

(G) maintaining information systems, and

(H) any other services specified by the Minister by order as gas services;

…

(k) "retailer" means a person who provides retail gas services, and includes an affiliated retailer;

4.1 Load Balancing

As referenced in the R3 Regulation clause 4(1)(i), ATCO Gas must perform load balancing for the gas distribution system. The Board has previously provided the following definition of load balancing:[5]

> Load balancing is part of the physical operation of the gas system, whereby gas supplies are adjusted to maintain the correct operating pressure in the gas system.

[5] Decision 2001-075, page 108

The Board continues to consider that definition properly captures the generic physical concept associated with load balancing.

ATCO Gas made reference to this definition in its evidence as follows[6]:

> …The Board's statement captures two distinct components of load balancing: i) the physical operation of the gas system, and ii) the adjustment of gas supply.
>
> The physical operation of the gas distribution system is about the movement of gas received from a transmission system through distribution facilities to end-use customer locations in response to their consumptions. System operations are relevant to distribution load balancing to the extent that aggregated distribution consumptions occur at transmission-distribution interconnection facilities ("interconnection stations") between ATCO Gas' distribution system(s) and ATCO Pipelines' transmission system(s). As is described in the overview of the physical operation of the gas system presented in section 4.1, the distribution system itself cannot be out of physical balance under normal conditions.
>
> ATCO Gas' distribution load balancing is about the adjustment of gas supply provided to ATCO Pipelines' transmission system in response to the gas flows delivered to ATCO Gas' distribution system at interconnection stations. In short, distribution load balancing is about balancing ATCO Gas' account on ATCO Pipelines' system. ATCO Gas' account contains all of its distribution system gas supplies (receipts) and all of its distribution consumptions as evidenced at interconnection stations (deliveries).

In this proceeding, ATCO Gas also indicated that[7]:

> ATCO Gas considers that “load balancing” relates to the establishment of rules governing the supply of gas to ATCO Gas’ distribution system by retailers, to meet their customers’ consumption each day, and accounting for the difference between the gas supplied by retailers and the gas consumed by customers on ATCO Gas’ distribution system, each day.

The Board provided a clarification respecting the distinction between load balancing and customer account balancing in Decision 2005-081[8] as follows:

> Account balancing is the process associated with administering account tolerances and reconciliation by individual customer accounts whereas load balancing is the process of acquisition or disposition of gas supplies by the utility to maintain the pipeline system pressures in balance. The two processes are linked to the extent that larger tolerances for customer account balancing would directionally result in larger daily amounts of gas being purchased/sold by the utility.

Hence the Board considers that it has previously acknowledged the notion of load balancing as including an administrative or supply related component in the context of the Retailer Service applications.

---

6 ATCO Gas Evidence, page 11, lines 9-24

7 ATCO Gas Argument, page 11, referencing Ex. 25, Application Section 4 commencing at p.11; Ex. 64-01, Rebuttal Evidence Section 2 commencing at p.4

8 Reference Decision 2001-081, page 2, footnote 4

ATCO Gas considered that load balancing rules in relation to the distribution system should ensure that all parties are treated fairly, that cross subsidization is minimized, and that the right parties are performing the right services in accordance with the regulations.

Calgary addressed the definition of load balancing as follows[9]:

> Calgary has utilized the Board's definition of load balancing as, and I quote, "part of the physical operation of the gas system whereby gas supplies are adjusted to maintain the correct operating pressure in the gas system."
>
> Maintenance of the pressure must and is done in realtime throughout the day to ensure safe and reliable service. Gas flows from the AP system to the AG system, as required throughout the day, to maintain target pressure on ATCO Gas. This is largely an automatic process and results from the simple fact that ATCO Gas is at the low pressure end of the overall system and ATCO Pipe is at higher pressures.
>
> As a result of ATCO Gas's ability to rely on AP to keep AG physically load balanced, the physical impact of load balancing the AG system changes the pressure on the AP system and potentially on NGTL. If the AP system is physically out of balance, the gas has to come from or go somewhere to bring AP system back into balance.
>
> For example, if the AP system is being drafted, then AP must arrange to take additional gas from NGTL or from some other source such as Carbon, to maintain pressure. Thus, gas supplies and flows must be and are managed throughout the day in terms of increased or decreased supply in proportion to the pack and draft in realtime. The management of that process is the load balancing function.
>
> It is the realtime function that cannot be deferred at the end of the day or to the last hour of the day. Account balancing, on the other hand, is an accounting exercise which allocates the volumes required to load balance over a defined period of time to the appropriate parties. Account balancing occurs after the fact.
>
> The balancing of the AG FSU[10] account is account balancing, not load balancing. It is a misnomer to refer to load balancing of the FSU account. The fact that account balancing is an accounting exercise is clear from the AG proposal to account balance its FSU account using the YD instrument.
>
> The purchase or sale of a YD instrument is long after the fact in terms of realtime load balancing. Accounts can be balanced daily, weekly, monthly, quarterly, semiannually or annually regardless of the load balancing parameters. The point in time and frequency when accounts are balanced has no impact on the load balancing which must be done in realtime.

[9] Transcript 348, Mr. Vander Veen

[10] Firm Service Utility (FSU) is an ATCO Gas account on ATCO Pipelines.

The Board concurs with both ATCO Gas and Calgary that load balancing for the ATCO Gas distribution system entails a real-time process and that it occurs automatically via the ATCO Pipelines system, utilizing downstream pressure control equipment, at least to the extent that the upstream transmission pipeline has itself been appropriately load balanced in order to maintain adequate operating pressures. In this respect, the Board believes that it is incumbent upon the gas distributor to take reasonable actions to coordinate with the upstream transmission systems such that the customers of the gas distributor will receive safe, reliable and economic service, in accordance with Clauses 4(1)(b), (c), (d) and (i) of the R3 Regulation. For example, the Board expects that ATCO Gas should participate in procedural monitoring and development activities with upstream pipelines such as ATCO Pipelines and NOVA Gas Transmission Ltd. (NGTL) to make certain that safe, reliable and economic service is being provided on behalf of its customers.

With respect to load balancing, the Board will consider incorporating both a physical or operational component as well as an associated administrative or supply component into the definition of 'load balancing' for purposes of this Decision. As indicated above, the physical quantity of gas required to load balance the distribution system in real time is obtained from the ATCO Pipelines system. The amount of gas required to balance the ATCO Gas FSU accounts on ATCO Pipelines is the difference between the amount of gas received by or delivered to the distribution systems and the amount of gas made available to the distributor by retailers and the DSP for any given time period for the respective systems. In addition the imbalance in the ATCO Gas FSU accounts must be dealt with in accordance with the prevailing administrative policies for customer accounts on the ATCO Pipelines system.

Calgary described the administration of these accumulations in the ATCO Gas FSU accounts as follows:[11]

> The changes in gas flows between AP and AG are driven by AG end-user loads (i.e., gas being drawn from the AG system). To the extent those end user loads flowing from the AP system to the AG system do not match the gas supplies being delivered to AG by its customers (retailers and the DSP) for shipment on AP, then imbalances on the AP system are created. These imbalances must be addressed to maintain safe operating pressures on AP. Consequently, AG's responsibility to load balance its distribution system means, in effect, actively managing the imbalances created on the AP system by imbalances (mis-match of supply and demand) on the AG system. This is a real-time physical activity. It is not something that can be done after-the-fact by bookkeeping entries.

The Board concurs with Calgary that ATCO Gas must administer its account imbalance in the FSU accounts on ATCO Pipelines with diligence to ensure continued safety and security of operations in relation to supply in accordance with Clauses 4(1)(b), (c), (d) and (i) of the R3 Regulation.

Calgary argued that balancing the ATCO Gas FSU accounts on ATCO Pipelines should not be considered as load balancing of the ATCO Gas distribution system because it is an after-the-fact reconciliation account balancing while load balancing is a real-time physical activity. The Board appreciates the distinction. However the Board considers both the physical real-time automatic balancing of the distribution system and the after-the-fact administrative reconciliation of the

[11] Calgary Argument, page 13, line 18

ATCO Gas FSU accounts with ATCO Pipelines as aspects of load balancing for the ATCO Gas distribution systems.

Therefore it seems reasonable to the Board to broaden the definition of load balancing as it applies to ATCO Gas to include the traditional real time physical aspect, as well as the administrative aspect associated with balancing the ATCO Gas FSU accounts on ATCO Pipelines. The Board considers that the balancing of ATCO Gas's FSU accounts on ATCO Pipelines is an administrative exercise involving the sale or acquisition of volumes required to balance gas that has largely physically flowed on the ATCO Gas distribution systems. Therefore, the Board will refer to load balancing in relation both to physical load balancing and load balancing administration in this Decision.

4.2 Customer Account Balancing

The concept of customer account balancing is not specifically addressed in the legislation. ATCO Gas described customer account balancing as:[12]

> For each retailer, account balancing is about maintaining the relationship between all the gas provided by the retailer ("receipt") and the gas delivered to all the retailer's customer's places of consumption ("delivery") as recorded by ATCO Gas in the retailer's account.

Calgary considered that:[13]

> AG Customer Account Balancing is the book keeping activity that involves the recording over a defined period of time (e.g., daily, monthly or annually) of each customer's allocated share of the physical gas used to load balance the AG system (e.g., Carbon storage injections and withdrawals and SD gas transactions, packs/drafts on AP and NGTL) and the YD gas bought or sold to balance AG's FSU account.

AES provided the following definition:[14]

> AES is of the view that Account Balancing can be defined as the process by which portions of the residual imbalance accumulated under load balancing the system are allocated to specific customer accounts where it can be determined that the customer's supply receipts into the system do not match the delivery volumes consumed by that customer.

As referenced earlier, the Board provided a clarification respecting the distinction between load balancing and customer account balancing in Decision 2005-081[15] as follows:

> Account balancing is the process associated with administering account tolerances and reconciliation by individual customer accounts whereas load balancing is the process of acquisition or disposition of gas supplies by the utility to maintain the pipeline system pressures in balance. The two processes are linked to the extent that larger tolerances for customer account balancing would directionally result in larger daily amounts of gas being purchased/sold by the utility.

[12] Exhibit 25, ATCO Gas Application, page 12
[13] Calgary Argument, page 8
[14] AES Argument, page 1
[15] Reference Decision 2001-081, page 2, footnote 4

All of the above definitions capture certain viewpoints associated with customer account balancing. The Board considers that customer account balancing on ATCO Gas entails the accounting and financial processes involved in monitoring an individual retailer or DSP account and adjusting the quantity of gas received (receipts) into that account such that the amount of gas received into the account matches the amount of gas delivered to the end-use customers of the account holder (deliveries) within a specified tolerance given information accuracy constraints over a selected period of time. In circumstances where receipt and/or delivery information is not accurately available for the selected period of time, the best available information utilizing estimates would be used. Simplistically, without introducing the complications of system losses and fuel, the difference between receipts and deliveries over any specified time period is the account imbalance. However fuel is required to operate the system and distribution system losses occur and must also be provided by the retailers and the DSP; hence the account imbalance can be described as receipt energy minus delivery energy minus fuel and distribution system losses.

The Board considers that the cumulative summation of all the retailer and DSP account imbalances is automatically provided into the distribution system from ATCO Pipelines and represents the quantity of gas that is associated with physical load balancing for the distribution system. This quantity of gas can be a positive or negative amount that is captured as the imbalance in the ATCO Gas FSU account on ATCO Pipelines.

4.3 Relationship to ATCO Pipelines Procedures

Prior Board decisions and orders for ATCO Pipelines are relevant in relation to load balancing and customer account balancing for ATCO Gas.

Board Order U2005-221[16] approved a negotiated settlement for a staged approach for daily customer account balancing on ATCO Pipelines. Stage 1 of the implementation utilizes a 7% tolerance window with a deferral of enforcement of daily account tolerance financial settlement. Shippers endeavour to bring their accounts into tolerance the next day. The agreement included provision for either ATCO Pipelines or interested parties to make an application to the Board in the event of disagreement to continue Stage 1 or move to Stage 2. Stage 2 implementation, targeted for approximately November, 2006, envisioned incorporation of any required procedural modifications and enforcement of tolerance zones, and also included provision for renegotiation or submission of an application by ATCO Pipelines in the event of a lack of success with Stage 2 practices. Final implementation contemplated further procedural review and provision for ATCO Pipelines to make an application to the Board in the event of disagreement. The settlement for daily account balancing indicated that customer account balancing and load balancing procedures on ATCO Pipelines were inextricably linked. Details of load balancing were to be subsequently addressed in load balancing negotiations.

Board Order U2005-261[17] approved a negotiated settlement for load balancing on ATCO Pipelines pending the commissioning of SCADA equipment between ATCO Pipelines and ATCO Gas. North and South load balancing deferral accounts were agreed to be established to collect the costs and credits associated with load balancing for ATCO Pipelines pressure

[16] ATCO Pipelines Ltd. Daily Customer Account Balancing Part A (Application 1384283), dated May 31, 2005
[17] ATCO Pipelines Customer Account Balancing - Part B: Load Balancing (Application 1396460), dated June 24, 2005

maintenance to bring the ATCO Pipelines account on NGTL within daily tolerance requirements.

Allocation of load balancing costs among shippers was to be done using throughput as a determinant, subject to further review, discussion among parties and reporting to the Board. Certain currently outstanding orders from Board Order U2005-261 included the following provisions, linking rules and procedures for account balancing on ATCO Pipelines to ATCO Gas's customer account balancing rules, load balancing rules and related regulatory processes:[18]

> 4. ATCO Pipelines shall include with the filing of the assessment on deferral account allocations an assessment of the impact to ATCO Pipelines customers of the developing ATCO Gas load balancing procedures together with recommendations, if any, for enhancing or adjusting the ATCO Pipelines load balancing procedures.
>
> 5. ATCO Pipelines jointly monitor and discuss with its customers any evolving requirements or opportunities to enhance or adjust load balancing procedures which may arise in association with current or subsequent regulatory procedures, and include an assessment of such potential enhancements or adjustments in conjunction with the filing of the assessment on deferral account allocations.

Board Order U2006-006[19] approved a simultaneous implementation date for customer account balancing and load balancing on ATCO Pipelines by not later than April 1, 2006, following a requested period of procedural familiarization, system testing and discussion of results.

Board Order U2006-107[20] approved ATCO Pipelines rate schedules and noted that customer account balancing had been introduced for testing on December 1, 2005. The Order provided that the simultaneous implementation date for customer account balancing and load balancing would be April 1, 2006.

From the process associated with Board Order U2005-261, the Board understands that ATCO Pipelines makes exclusive use of the Yesterday (Y Day) instrument to acquire supplies for its load balancing purposes, although it did consider and reject other potential alternatives such as same day (SD) gas, reservoir storage and salt cavern storage. The assessment of load balancing alternatives and the participation of Calgary in the ATCO Pipelines load balancing settlement were discussed during cross-examination of the Calgary panel by Board Counsel, which was discussed by Nexen in its argument as follows:[21]

> During cross-examination of the City of Calgary Panel, the use of Carbon Storage to load balance the ATCO Gas distribution system endured significant discussion. Reference was made several times to customer account balancing and load balancing relating to ATCO Pipelines, in particular the Settlements reached for both processes and approved under Board Orders U2005-221 (Application 1429990) and U2005-261 (Application 1396460). Nexen was a participant in both Settlements and believes that the procedures in place under the Settlements are working effectively and it would be inappropriate to alter the

[18] U2005-261, page 9
[19] ATCO Pipelines Customer Account Balancing Implementation Process Order Application, dated January 16, 2006
[20] ATCO Pipelines – Revised Transportation Service Regulations and Rate Schedules, dated April 25, 2006
[21] Nexen Argument, page 5 (Note that Phase I and Phase II should be read as Stage 1 and Stage 2, respectively)

> Settlements in any manner through this proceeding. Daily Account Balancing on ATCO Pipelines commenced on April 1, 2006 and is set as a phased-in process with reviews and bench marks associated with moving from one phase to another. …
>
> With regard to having a single party perform the daily balancing transactions, although it may create some efficiencies, Nexen does not support that option. Again, retailers are charged with the responsibility for gas services and have entered into gas supply contracts with supply and pricing commitments that are managed through various strategies and market views. Removing that control by allowing a third party to make market and pricing decisions on their behalf and allocate those costs back serves to frustrate those contracts and introduce risk and costs that the retailers cannot manage directly.
>
> As for the ATCO Pipelines Load Balancing Settlement, the use of Carbon Storage to load balance the pipeline was part of the Settlement discussions. It is Nexen's view that the use of Carbon Storage was unacceptable to both ATCO Pipelines and many of the stakeholders and as a result the use of Carbon Storage to load balance ATCO Pipelines did not form part of the Settlement. Parties to the Settlement agreed that ATCO Pipelines would seek gas supply services for load balancing from a third party through a bid process. Although the City of Calgary interprets the Settlement as leaving the door open to resources other than the NGTL system for ATCO Pipelines to maintain pressure on its system, this does not mean it would be appropriate for the Board to open the Settlement and insert a provision to use Carbon Storage. As Mr. Johnson (City of Calgary) indicated when asked about raising the Carbon Storage issue during the ATCO Pipelines' load balancing settlement discussions, "… I just about got run out of the room" (Proceeding Transcripts, Volume 4, June 9, 2006, Page 470, Lines 2-4) should have given the City of Calgary a clear indication that the stakeholders precluded that option. Nexen, as a participant in the Settlement, would not support opening the Settlement to make allowances for the use of Carbon Storage to load balance ATCO Pipelines.
>
> Nexen views ATCO Gas' Application as mirroring the concept established in the ATCO Pipelines Settlement for Customer Account Balancing when defining the relationship between customer account balancing and load balancing. The Settlement for Customer Account Balancing on ATCO Pipelines, approved in Board Order U2005-221, includes the concept that " …. daily account balancing is inextricably linked to Load Balancing issues on ATCO Pipelines" (Board Order U2005-221, Appendix 1, Page 1). The Settlement provided agreement for the establishment of load balancing deferral accounts, as well as a separate process for negotiation of the load balancing procedures. The Load Balancing Settlement that resulted from those later negotiations addresses the impacts that daily account balancing and customer imbalances have on load balancing. In its approval (Board Order U2005-261, page 6, "Deferral Account Cost Allocation), the Board noted that "The Settlement Agreement also includes provisions for ATCO to collect and analyze up to twelve months of customer account imbalance data with a view to assist in assessing cost causation related to load balancing amounts in the deferral accounts." The Settlement also provides for ATCO Pipelines to consult with its Customers to determine if a change in allocation methodology is appropriate and submit any recommended changes to the Board for approval.

The Board concluded in Order U2005-261 that parties did not express any concerns with the process, had a fair opportunity to present their views, and that the process was fair. The Board also notes that Calgary did not raise any objection to the fairness of the process when it indicated its support for the settlement.

The Board notes that Nexen suggested it would not support opening the settlement process to consider the use of Carbon storage for load balancing of the ATCO Pipelines system. Although Board Order U2005-261 leaves open the possibility that further changes could be made to load balancing procedures on ATCO Pipelines, the Board considers that the most opportune time for Calgary to have asserted a role for Carbon storage in load balancing the ATCO Pipelines system would have been in the context of the load balancing settlement discussions and subsequent Board process. The Board believes it to be material that Calgary supported the settlement which provides for the utilization of ATCO Pipelines' NGTL account to load balance the ATCO Pipelines system with the requirement that ATCO Pipelines will bring its NGTL account into tolerance by transacting through one or more suppliers to buy/sell gas on the market. The Board, however, is not convinced that the terms of the ATCO Pipelines settlements would preclude consideration of alternative load balancing approaches, including the use of Carbon storage, for ATCO Gas.

4.4 Legislative Bounds between Customer Account Balancing and Load Balancing

Role of Gas Distributor in Acquiring Gas

ATCO Gas considered that the legislation intends that ATCO Gas should minimize the amount of gas that it acquires for purposes of load balancing. Further ATCO Gas considered that it is precluded from utilizing storage for load balancing. Additionally ATCO Gas considered that it has the full management discretion to make the necessary decisions about how to configure and operate the system in order to provide the service contemplated by the legislation.

The Board finds no more than directional support in the legislation for the conclusion of ATCO Gas that a distributor ought to minimize the amount of gas that it acquires for load balancing. While Section 5(1) of the R3 Regulation provides that it is the function of retailers and the DSP, and not the gas distributor, to provide Gas Services, the legislation does not stipulate a maximum volume of gas that can be employed by a gas distributor in performing its load balancing responsibilities. Provided the gas distributor is providing a load balancing function and not a gas procurement function for delivery to end use customers, the procurement of gas is permitted by the legislation.

In general, the Board agrees with ATCO Gas that the intention of the legislation would be for retailers and the DSP to provide the gas services function and for ATCO Gas to provide any remaining amount as load balancing. The Board considers that the legislation recognizes that in reality the ownership and precise quantities of the gas entering and leaving the gas distribution system is not known in real time, and on that basis retailers and the DSP will not be able to supply the exact amount of physical gas supply required by their respective customers in real time. Therefore, on a practical basis, some load balancing is required. ATCO Gas discussed this further as follows:

> In an ideal world, all gas entering and leaving the gas distribution system would be known at the time it occurs, that is, in real time. If all gas flows were known, there would be no reason(s) preventing a retailer from meeting all the gas requirements of its customers in real time. Therefore, ideal account balancing would require that all physical gas supply provided by a retailer would equal the physical gas consumed by all of that retailer's end-use customers, plus their share of physical pipe losses in real time.
>
> Since in ideal account balancing all gas supply and consumption is contained and managed within all retailer accounts, there is no additional physical gas supply

> requirement resulting from an aggregate "residual" imbalance on the distribution system (i.e. the load balancing requirement is zero).[22]
>
> In the real world, all gas entering and leaving the gas distribution system is not known in real time. Therefore, "practical" account balancing must necessarily depend on estimates for consumption, losses and gas supply. [23]

In the ATCO Gas argument,[24] in response to an assertion by Calgary that ATCO Gas, as the gas distributor, has the ultimate responsibility to step in if the DSP and retailers were unable to perform their responsibilities, ATCO Gas submitted that the failure of all retailers and the DSP was not something that ATCO Gas could forecast or control. In addition, ATCO Gas argued that it was not ATCO Gas, the distributor**,** who would have to assume the responsibility for the supply of last resort; it would be ATCO Gas assuming the responsibilities of the DSP, which must, by legislation, be kept distinct from the performance of distribution services. ATCO Gas submitted that the related costs of this function would be recovered through the Default Rate Tariff not the Gas Distribution Tariff (GDT). ATCO Gas argued that the provision of gas supply in such a circumstance would in no way qualify as load balancing (the costs of which are recovered as part of the GDT) because if it did, the responsibility for load balancing would have been assigned to the DSP pursuant to the 3R Regulation.

The Board agrees with ATCO Gas that the procurement of the gas supply is a function and responsibility of the DSP and of retailers and is not a load balancing function of the distributor. For clarity, however, the Board considers that in certain extraordinary conditions, such as a temporary failure to supply by retailers and/or the DSP, the load balancing requirement of the distributor could increase significantly on a temporary basis until the failure was rectified by the defaulting party. In the case of a longer term default, the load balancing obligations of ATCO Gas would increase as the circumstances dictate, which in the case of a default by the DSP would be until that role was reassumed by ATCO Gas, and in the case of a retailer, would be until that retailer's customers became self retailers, or were assumed by another retailer or by the DSP. The defaulting party, in either case, would still be subject to the penalty provisions associated with the account balancing rules. ATCO Gas would be expected to work with the defaulting party in managing any such situation to ensure the continuing integrity of the distribution system and to minimize impacts to consumers.

The Board considers that a prudent distribution system operator should have contingency plans in place to address the situation where a retailer and/or DSP failed to provide supply in circumstances such as those described above. These contingency plans should be available for review by the Board upon request. The Board would also expect that ATCO Gas would presently have in place, to the extent reasonably possible, a transition plan to resume the role of DSP should it become clear that DERS would not be able to carry on with its role as the DSP.

Generally speaking, the Board considers that, except in those exceptional circumstances just discussed, in which a retailer/DSP failure to supply event occurs, the volume of gas acquired by ATCO Gas to perform its load balancing responsibilities ought to be minimized to the extent that is practical, while falling within the goals of providing safe, reliable and economic gas distribution services.

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[22] AG Written Evidence, p. 27
[23] AG Written Evidence, p. 28
[24] Reference ATCO Gas Argument, pages 26 and 27

Is ATCO Gas precluded by legislation from utilizing Carbon storage for load balancing?

In its reply argument, ATCO Gas stated:[25]

> Notwithstanding the above, Calgary suggests that the use of Carbon storage under the guise of "load balancing" is somehow consistent with the legislation. In ATCO Gas' view, Calgary's position is contrary to the unambiguous language of the legislation. ATCO Gas submits the legislation is clear: the carefully defined "gas distribution service" neither permits nor requires the use of storage. Independent of these legal interpretations, ATCO Gas' management also has determined that storage is not appropriate, nor required, for any aspect of its gas distribution function, including load balancing.

The Board has included references to pertinent sections of the legislation in Section 4 of this Decision. ATCO Gas bases its arguments in particular on the provisions of Sections 3, 4(1), 4(3) and 5(1) of the R3 Regulation and the definition of "gas services" in the GUA. While the Board agrees with ATCO Gas that the legislation does not require the distributor to utilize storage for purposes of the distributor's load balancing function, the Board disagrees that the legislation prohibits the use of storage for load balancing purposes. The Board considers that the use of storage or any other mechanism to perform the gas distributor's obligation to load balance the gas distribution system would be permitted by the legislation, to the extent it would be prudent to do so in providing safe, reliable and economic delivery of gas to customers. The Board concludes that ATCO Gas is not precluded from using storage for load balancing purposes by legislation.

5 CUSTOMER ACCOUNTS

This section will primarily address the time period for customer account balancing. Additionally it will discuss the components making up the customer account, account imbalances, the concept of an imbalance tolerance window, and settlement of imbalances.

The time period for customer account balancing relates to the time used by ATCO Gas over which to assess the relationship or imbalance between gas received into the account in comparison to gas delivered from the account.

First the Board will address the components of the customer account which is required for each retailer and the DSP.

5.1 Account Components

ATCO Gas indicated that it is seeking approval that each retailer, self-retailer and DSP account contain receipts, deliveries, Rider D, imbalance purchases and sales, and adjustments where:

- receipt means net gas supply nominated into the account on that day;
- delivery means backcast consumption which is the sum of consumption for all sites enrolled with the retailer on that day;

[25] ATCO Gas Reply, page 5, line 20

- Rider D recovery means the recovery of unaccounted for gas which is calculated as Rider D percent times the delivery;
- imbalance purchases and imbalance sales means the energy amount outside the ±imbalance window removed from or added to the account respectively, rounded to the nearest GJ; and
- adjustments means any variance attributable to a previous period which is brought forward into the current day and includes:
  - the previous daily account imbalance,
  - the daily allocation of the prior month(s) backcast/settlement variance
  - the daily allocation of any other appropriate energy adjustment(s) applicable to the account (for example, adjustment to measurement(s)).

The Board has also reviewed the definitions provided by ATCO Gas and considers that in some of the details they presume daily customer account balancing, which has not yet been addressed within this Decision, but will be dealt with subsequently. The Board notes that interested parties did not disagree with the conceptual components identified by ATCO Gas for each customer account, although some parties, such as Calgary, considered that enhancements aligned with the specifics of their alternative approaches ought to be incorporated.

Without prejudging the outcomes in subsequent sections of this Decision, the Board considers it appropriate to generically conclude that each customer account will include receipts, deliveries, Rider D, any applicable imbalance purchases and sales, and prior period adjustments.

In relation to prior period adjustments, ATCO Gas requested approval that prior month(s) adjustments be included in the DSP and retailer's account(s) in the first month following the month in which they have been determined and that they be worked off equally each day in the month, with any required correction for rounding included in the last day of the month. The Board notes that this is generally analogous to the treatment of prior period imbalance quantities currently utilized by ATCO Gas for Rate 13 service.[26] No parties expressed concerns specifically in relation to this treatment of prior period adjustments and the Board considers that it is reasonable.

5.2 Imbalance Time Period

ATCO Gas requested approval that the time period used to determine the imbalance in retailer's account(s) be the gas day from 8:00 AM to 8:00 AM (MST) which is accepted for use by the natural gas industry within the Province of Alberta.

ATCO Gas reached its conclusion that daily account balancing was recommended after assessing three alternative approaches. ATCO described the alternatives, and some of their attributes, as follows:

[26] Reference ATCO Gas Rate Schedules for Rate 13 indicating when the Customer's Account is put out of balance by actual adjustments, the Customer is required to bring the account into balance by providing 1/25 of the imbalance amount on a daily basis over a 25-day period.

Alternative 1 - Daily account balancing

- Retailer required to balance daily with imbalances outside the window calculated and bought/sold at the end of the day
- Provides Retailer incentive to change account supply to match the day-to-day fluctuations in account consumption
  - Retailer adjusts its supply procurement for the daily, monthly, seasonal and annual components of its customers' aggregate consumption
- Minimizes the effect of imbalances on the load balancing account
  - the cost of Retailer imbalances is most closely aligned with the Retailer causing the imbalances
- Minimizes the month-to-month carry over of imbalances energy
- Can include a minimum account imbalance energy to accommodate small Retailer accounts

Alternative 2 - "Rate 13-Like" account balancing

- Retailer required to balance monthly with imbalances outside the window calculated and bought/sold at the end of the month
- Provides Retailer incentive to change account supply to keep imbalance within the window at month end
  - Retailer retains some daily variability in its supply procurement in addition to the monthly, seasonal and annual components of its customers' aggregate consumption
- No immediate consequence if Retailer does not maintain a daily balance between supply and demand
- Larger daily imbalances have greater effect on the load balancing account
  - the cost of imbalances is less directly aligned with the party causing the imbalances
- Monthly imbalance settlement provides a floor and ceiling for the month-to-month carry over of imbalances energy

Alternative 3 - "Rate 11-Like" account balancing

- Retailer supplies forecasted normal consumption at 100% load factor
- Difference between the forecasted normal and actual consumption carried to the next month
- Account supply is 100% load factor monthly based on "normal"
  - Retailer retains some variability in its supply procurement for monthly, seasonal and annual components of its customers' aggregate consumption
- No relationship is established between daily consumption and daily supply
  - no real time access to daily account data necessary
- Large daily imbalances have maximum effect on the load balancing account
  - minimum alignment between cost and cause of imbalances
- Results in maximum month-to-month imbalance carry over

The Board considers that the two key options upon which parties focused their attention were the daily balancing option and the monthly Rate 11-Like option. No party favored the Rate 13-Like alternative. Consequently, the Board has not considered this option to any significant degree in its deliberations. A significant difference between the daily balancing option and the Rate 11-Like option is the amount of load balancing requirement arising from each that is to be provided

by ATCO Gas. ATCO Gas estimated the potential load balancing requirements for the three options as summarized in the following table.

Table 1. Potential Daily Load Balancing Requirement for Different Account Balancing Procedures as Estimated by ATCO Gas

Account Balancing Alternative[27]	Maximum Purchase (TJ/day)	Maximum Sale (TJ/day)
Monthly Rate 11-Like	340	401
Monthly Rate 13-Like	330	385
Daily with +/-5% Balancing Window and Expected Supply	93	91

The Board notes the considerable differences in the amount of volumes required for load balancing, associated with the different account balancing alternatives. The Board will weigh the fundamental differences between daily and monthly account balancing in this section of the Decision.

Daily Account Balancing

ATCO Gas proposed the daily balancing option because it considered that it most closely aligns the provision of gas supplied by retailers with gas consumed by the customers of the retailers. ATCO Gas suggested that this alignment would be consistent with the intent of the legislation as referenced in this comment from its rebuttal evidence[28]:

> ATCO Gas' proposal minimizes the load balancing requirement and by doing so maximizes the gas supply controlled by retailers. This provides retailers the opportunity to use their expertise and innovation to develop strategies to look for ways to minimize costs and offer competitively priced service offerings. Again, ATCO Gas believes this is in the spirit of the new legislation. Maximizing the load balancing requirement ensures that less gas supply is subjected to the control of retailers and therefore to competitive forces.

ATCO Gas noted that the daily balancing option would minimize the amount of gas that ATCO Gas would be required to provide to load balance the distribution system, thereby maximizing the amount of gas provided by the retailers and keeping ATCO Gas distanced from the retailer gas services function.

The ATCO Gas position on daily balancing was supported by Nexen, ENMAX, DERS and DEP.

AES expressed two concerns with daily account balancing and recommended a monthly customer account balancing arrangement. AES argued that, since the ATCO Gas standard for meter reading is monthly, there is no definitive daily meter reading data available[29] as most customers do not have AMR equipment installed that would provide accurate daily consumption data by customer. AES considered that the DFSS proposed by ATCO Gas could not capture individual customer behavior and would not be sufficiently accurate[30] to prevent potential cross-subsidization between retailers. AES considered that this concern would be alleviated by

[27] Reference ATCO Gas Evidence Table 1, page 19
[28] ATCO Gas Rebuttal Evidence, Page 28, line 20
[29] Reference AES Evidence, page 4, line 21
[30] Reference AES PowerPoint presentation, Exhibit 13-03

retaining a monthly customer account balancing process that is more closely linked to monthly meter reading.

ATCO Gas agreed that the accuracy of DFSS is important but considered that the accuracy of the data used each day is not an excuse for not balancing each day.[31] ATCO Gas pointed out that the entire intra-Alberta gas industry requires daily estimates to carry out its daily business.

The Board considers that the process of cyclic monthly meter reading will of necessity entail some level of estimation of customer consumption. The Board anticipates that any estimating variances would be applied consistently among all retailers and the DSP so that, while individual customers may experience variances in consumption patterns and hence individual customer estimating accuracy, as pointed out by AES, the aggregate variance amount for a group of similar customers would be uniform enough that unfair results would not accrue as between one retailer/DSP and another. Accordingly the Board does not consider that potential daily variability for individual customers should preclude consideration of daily balancing in conjunction with DFSS estimations in aggregate.

AES was also opposed to the daily balancing proposal on the basis of cost efficiency. AES argued that having ATCO Gas procure all the daily load balancing volumes on behalf of all shippers would be more cost effective as retailers would not necessarily be required to each maintain staff and incur costs to enable balancing of their accounts on a daily basis. AES considered that a requirement to daily balance, with its inherent administrative costs, could act as a barrier to entry for new retailers.

AES presented an analysis[32] of costs to customers as referenced below and concluded that the costs to consumers under the ATCO Gas daily balancing option were slightly higher, but similar to the Rate 11-Like proposal recommended by AES. Moreover, AES considered that retailers could be required to incur additional costs beyond those considered in its analysis:

> AES submits that the cost to consumers, based upon the simple input costs/revenues considered, under the AG DB proposal are higher overall but similar, to the current Rate 11-Like account balancing method.
>
> However AES is of the belief that the following additional costs must also be considered in assessing the increase to consumers under AG's DB proposal. (These costs were not quantified in the models run):
>
> 1. The simulations were run assuming one retailer was managing the entire consumer load. Cost efficiencies would be lost as this function, practically, is repeated by a number of retailers serving a varying number of customer accounts.
> 2. The costs for financial hedge instruments to mitigate the risks of daily pricing volatility.
> 3. The infrastructure costs for each party to establish, staff and maintain a trading desk 7 days a week.
> 4. The costs of credit required between various parties to trade Y-Day volumes and the potential costs incurred due to liquidity.

[31] Reference ATCO Gas Rebuttal Evidence, page 33
[32] AES Evidence, page 14

5. The impact potential due to the percentage of the load that is un-metered and therefore estimated between ATCO Pipelines and ATCO Gas distribution. (3%)

The shift of what AES considers to be load balancing functions into customer account balancing introduces additional risks and costs (outlined herein) to be borne by consumers through retailers. It is our belief that this shift may create barriers to the continued development of consumer choice in the natural gas retail market.

Calgary also considered that the change proposed by ATCO Gas to move to daily balancing would result in higher aggregate costs for customers and retailers without offsetting benefits, as follows:[33]

So we have a situation under ATCO's proposal where at the end of each gas day 22 individual Retailers, the DSP and ATCO are all in the YD market either buying or selling gas. This is extremely inefficient. Every Retailer, the DSP and ATCO must have the resources available 7 days a week, 365 days a year to buy or sell gas at the end of each gas day. ATCO's proposal is effectively 23 times more expensive than the current regime. This additional cost would ultimately be paid for by customers.

It is significantly more efficient to have a single party buy or sell all the gas required to balance AG's FSU account (currently the DSP buys and sells all the required gas) and to recover or credit the cost of the gas purchased or sold back to Retailers in a manner that reasonably aligns each Retailer's gas costs with cost causation.

ATCO Gas considered that the additional costs as identified by AES were properly associated with the retailers' cost of doing business in the competitive environment associated with the legislation and would not be inappropriate, as described in the following reference[34]:

AES conveys that ATCO Gas' proposal introduces inefficiencies because of duplication of effort by retailers related to daily transactions as opposed to the gas distributor doing it all. AES appears to be selective in its view of what constitutes additional cost. For example, AES acknowledges that it has similar functions to others participating in this market. Yet AES also contends that having one entity managing "load balancing of the deferral account … provides the best cost efficiencies to end users". ATCO Gas does not agree. If duplication of effort is a reason for dismissing ATCO Gas' proposal then AES should be opposed to the entire concept of a competitive natural gas market. By its nature competition involves duplication. All retailers likely have billing systems, marketing groups, gas supply personnel, administrative staff and so on. To be consistent AES should be proposing that these functions should also be done by one entity with the costs allocated to each retailer. ATCO Gas believes that the spirit of the legislation is that "cost efficiencies" are to be managed by retailers in the provision of the gas services that customers require.

The Board also notes that CCA indicated:[35]

The CCA submit that the AES challenge to the ATCO position is attempting to put too much emphasis on their own proposal as somehow being in accord with the legislation,

[33] Calgary Evidence, page 12, line 1
[34] Reference ATCO Gas Written rebuttal Evidence, page 27
[35] CCA Argument, page 11

> regulations or government policy. The CCA submits that when these are examined there is no mandated method.
>
> Given the above the CCA submit that the EUB ought to give the greatest weight to the ATCO proposal as being, if not consistent with the legislated framework, at least not prohibited by it.

The Board considers that the cost of providing gas services should be borne by the DSP/retailers in keeping with the legislation, and that the responsibility of ATCO Gas to provide load balancing should not be interpreted so broadly that it would reduce or replace the obligation of the DSP/retailers to provide gas services. Further, regarding the assessment of cost efficiencies relating to account balancing, the Board has not been convinced by the submissions of AES and Calgary that duplication of effort and related costs to individual retailers should be a material factor to be considered. Indeed, the entire direction of the legislation is to foster retail competition, which, by definition, would include multiple independent players, striving though creativity, cost management and process efficiencies to capture market on the basis of price and service advantages to customers. The Board agrees with ATCO Gas that competitive suppliers will each undertake similar actions and support similar internal operations and processes, and that they should each be responsible for managing their own cost efficiencies.

Calgary did not consider daily customer account balancing to be appropriate and presented evidence in support of monthly customer account balancing in conjunction with utilization of Carbon Storage for load balancing purposes.

In response to cross examination by Board Counsel, Calgary responded that if the Board was disinclined to approve the monthly balancing model suggested by Calgary, daily balancing information could be utilized to maintain retailer accounts on a daily basis to better align costs to individual retailers on the basis of cost causation as referenced below[36]:

> A. MR. MILNE: No, sir. I think, as I indicated earlier, if there was an inclination on behalf -- on the part of the Board to allow ATCO to proceed with the development of the DFSS model and if ATCO could demonstrate to the satisfaction of retailers that the DFSS model can estimate end user demand -- an acceptable level of accuracy, then that information could be used, as I said earlier, to maintain retailer accounts on a daily basis -- not balance them but to maintain them on a daily basis because the benefit of doing that, as I said earlier, allows gas supply cost to be aligned precisely with cost causation. So they would be aligned precisely with each on a day-by-day basis with each retailer.
>
> That would be perhaps an option that Calgary would be prepared to accept, but again, as I said earlier, to develop a pilot to see if it can make daily balancing work, we see no benefit in that. I cannot find anywhere where there would be -- where there's a benefit to anybody associated with daily account balancing compared to monthly account balancing. I just don't see the benefit.

[36] Reference Transcript 426, 427

> You give up all of the economies of scale of having a single party load balance. You compromise or you jeopardize developing the -- the competition that already exists, which isn't very much, in the retail market, and you jeopardize the possibility of that competition increases.
>
> What you do gain, not from daily balancing but by having a DFSS model that is sufficiently accurate would be an accurate alignment of costs with cost causation on a day-by-day basis. So it would give you a good alignment of costs between retailers, but you don't need it and there's nothing to be gained from it by going to daily balancing.

The Board understands that Calgary would see no benefit to daily customer account balancing and that Calgary considered that it would be more efficient for one party, ATCO Gas, to administer the larger load balancing requirement associated with monthly customer account balancing, rather than having each of the retailers administer smaller portions in association with daily customer account balancing. However, Calgary considered that there could be a benefit associated with using daily account information to be able to track costs on a cost causation basis with each DSP/retailer if it could be performed accurately, to administer costs associated with account imbalances to each retailer. AUMA/EDM/UCA expressed a similar perspective that by monitoring accounts daily, ATCO Gas could determine a reasonable estimate of the daily balancing costs for each retailer based on a zero daily tolerance and could allocate those costs to each retailer on a monthly basis in a process that would obviate the need for an LBDA.

In response to these comments ATCO Gas indicated the following:[37]

> Decision 2005-081 orders the following with respect to the recovery of load balancing costs:
>
> • the cost of load balancing should be shared by all end use customers regardless of whether the end use customer obtains its gas from the DSP or a Retailer.
>
> This direction would appear to be quite clear in its intent. The reference to end use customers, regardless of who they receive their gas supply from, would be difficult to interpret as anything but the actual consumer of the gas. Presumably, the Board's use of the term "customer" accords with the definition set forth in the legislation.
>
> …
>
> There is a very clear reason why the costs of load balancing are to be recovered from the end consumer of the delivery service; because, the legislation has recognized this as a function related to the delivery service, not the gas supply service.

The Board concurs with the perspective provided by ATCO Gas. Therefore, the Board does not see merit in further consideration of the option to stream daily load balancing costs directly to retailers in the scenario discussed by Calgary and AUMA/EDM/UCA. Further discussion on this matter is included in Section 8.3.

[37] Reference ATCO Gas Reply Argument, page 38

Daily Account Balancing vs. Monthly Account Balancing

Retailer/DSP Control

The Board believes that the significant variation in the potential load balancing requirement between the monthly and daily customer account balancing alternatives is a fundamental consideration. With the monthly account balancing procedure, retailers and the DSP would be expected to delivery a flat quantity of gas each day of the month with any excess quantities being sold by ATCO Gas in order to load balance its system. Conversely, any shortage of gas due to higher than average consumption would need to be acquired by ATCO Gas. With daily account balancing, the retailers and DSP would be expected to deliver a quantity of gas which would be variable each day dependent upon the prevailing weather related system demand conditions. As reflected in the significantly reduced potential daily load balancing requirements from Table 1, the daily balancing alternative would expectedly bring a supply from retailers and the DSP that is more closely aligned with the daily consumption of the customers served by each retailer and the DSP. ATCO Gas has emphasized that it believes this is important as daily balancing would leave more of the provision of gas services in the hands of the retailers and DSP. AUMA/EDM/UCA also provided the following similar comment:

> The AUMA/EDM/UCA consider that Calgary's monthly account balancing proposal has the advantages of simplicity and low cost but does not enable gas supply costs nor balancing costs to be aligned with cost causation for each retailer each day. It also results in ATCO Gas managing and controlling large quantities of daily balancing gas through YD instruments as opposed to the serving retailer.

ENMAX expressed the following similar supportive position with respect to daily account balancing:[38]

> EEC supports the approval of the principle of a methodology of daily account balancing ("DAB"). In EEC's submission, the current monthly balancing approach can create large step changes between forecast and settlement. Under the current approach, there is also a significant delay between nomination and settlement, resulting in the potential for temporal cross-subsidy between shippers. A properly implemented DAB approach should reduce the potential for cross-subsidization, by making suppliers responsible for the load balancing costs that they cause.

The Board also notes the argument of Nexen with respect to control over the gas supply function quoted in Section 4.3 of this Decision:

> With regard to having a single party perform the daily balancing transactions, although it may create some efficiencies, Nexen does not support that option. Again, retailers are charged with the responsibility for gas services and have entered into gas supply contracts with supply and pricing commitments that are managed through various strategies and market views. Removing that control by allowing a third party to make market and pricing decisions on their behalf and allocate those costs back serves to frustrate those contracts and introduce risk and costs that the retailers cannot manage directly.

The Board agrees with this perspective of ATCO Gas, AUMA/EDM/UCA, ENMAX and Nexen, that daily balancing would leave more of the provision of gas services in the hands of the

[38] ENMAX Argument, page 1

retailers and DSP. The Board expects this is the reason why almost all of the retailers choosing to participate in this process indicated that they are in favour of daily customer account balancing. On balance, although the legislation does not provide direction as to the appropriate volume of gas to be managed by a gas distributor in providing load balancing services, the Board considers the implementation of daily account balancing and the consequent reduction in volumes required to perform load balancing, is more closely aligned with the intent of the legislation as reflected by the obligation of the DSP and retailers to provide gas services and is more in keeping with a level playing field among the DSP/retailers. Further, daily account balancing would be more consistent with competition in the retail marketplace through enhanced control of supply by individual retailers or the DSP.

Carbon Storage

Calgary recommended that ATCO Gas utilize monthly customer account balancing similar to the current Rate 11 regime. In association with this approach, Calgary further proposed that ATCO Gas should utilize the Carbon storage facility as a mechanism to load balance its system. In this respect Calgary proposed that the quantity of storage capacity to be used for load balancing would be determined at the beginning of each storage year depending on the value or price of storage capacity at that time.

ATCO Gas disagreed with the Calgary proposal for numerous reasons as referenced below[39]:

> Unfortunately Calgary appears to view the Board's requirement for ATCO Gas to consider various mechanisms for load balancing as an opportunity to introduce the use of Carbon storage for a purpose that it has never been used for (i.e. the backstopping of retailers) and which is not in any way necessitated by this Application.
> …
>
> To be clear, there is no requirement for the use of storage for balancing ATCO Gas' FSU account (or any other purpose) and ATCO Gas cannot even implement Calgary's proposed use of the Carbon storage facility.
> …
>
> ATCO Gas believes that Calgary's proposal is regressive. Currently the DSP carries out daily balancing both for its own regulated sales customers and for the gas distribution system as a whole. Accordingly, Calgary's proposal will significantly increase the energy quantity needed to balance ATCO Gas' FSU accounts.
>
> Retailers serving Rate 13 customers would also have less stringent guidelines to adhere to because Calgary's proposal does not include any restrictions on how high the imbalance can get within a month. Calgary is therefore recommending that approximately 80% of ATCO Gas' throughput be moved to less stringent terms and conditions than what is happening on the system today. This is a step back from the accountability that now occurs with respect to the provision of supply on ATCO Gas' distribution system for customers, by retailers.
> …
> The only conclusion that can be arrived at from all of this is that using Carbon for purposes of balancing ATCO Gas' FSU account not only is not necessary, but it just doesn't work.

[39] ATCO Gas Rebuttal Evidence, pages 8-20

The Board shares many of the concerns expressed by ATCO Gas with respect to the Calgary proposals. Further, the Board found the Calgary proposals in its evidence related to the linked concepts of monthly account balancing in concert with the utilization of Carbon storage for load balancing to be incomplete and sketchy. The Calgary process related to borrowing gas from Carbon as referenced below during examination by Board Counsel is an example:[40]

A. MR. MILNE:
…In a situation where you're using Carbon, then ATCO Pipe management or controllers during the day would see that the ATCO Gas system is -- end users are drawing more gas off the system than the 1,000 being put in. They would then call at some point during the day for gas to come out of Carbon and into the ATCO Pipe system.
Let's say that was 50 units, so they've withdrawn from Carbon 50 units to help deal, load balance the ATCO Gas system.
Q. Sorry, just to interrupt you, sir, 50 units of whose gas?
A. MR. MILNE: 50 units of gas.
Q. Who owns it?
A. MR. MILNE: Pardon?
Q. Who owns that gas that's withdrawn?
A. MR. MILNE: It's been borrowed.
Q. Borrowed by?
A. MR. MILNE: By ATCO Gas.
Q. From?
A. MR. MILNE: From gas that's in the -- third-party gas that's in the ATCO Gas storage field.
Q. With the permission of the third-party owner?
A. MR. MILNE: I may get others to comment who may be more knowledgeable about that factor, that situation than I am, but as I understand it, that's something that's done very commonly.
A. DR. WALSH: If I might, Mr. McNulty, one of the things that would be involved in Calgary's proposal, of course, deals with the fact that retailers in DSP gas is moving through the entire system itself. And to the extent that perhaps on one day the DSP, or retailers, have had to or at least ATCO Gas has had to take their gas and store it, in essence in a notional sense, then it can be redelivered.
So when you ask whose gas is it? It could very well be the DSP or retailers gas in that case.
Q. Who would pay the withdrawal fee?
A. MR. MILNE: What was the question, sir?
Q. Who would pay the withdrawal fee for the withdrawal of the gas from storage?
A. DR. WALSH: When you refer to withdrawal fee, are you referring to the actual costs of withdrawal as opposed to a contract fee for withdrawal?
Q. You take your pick, sir. I'm not sure how your system works.

[40] Reference Transcript 438

> A. DR. WALSH: I think, I don't want to put words in your mouth, but I would suggest what you're referring to are the costs of having to withdraw that gas physically from Carbon.
> Q. Yes.
> A. DR. WALSH: Well, first of all, again, to the extent that there's gas notionally being redelivered back onto the system, there is no cost to it.
>
> The balance that we've done in our example shows that, let's say the withdrawal season for example, you are looking at a balance of withdrawal gas that is coming back into the system under the terms and agreements of the third party storage arrangement and you're offsetting that to the extent that the market that day is either using the gas or not using the gas. When I say "market," I mean ATCO Gas South. So there isn't a fee there.
>
> Certainly any costs that would relate to the physical operation associated with Carbon would be built into the Carbon operating cost.

Calgary's proposal to use Carbon in concert with monthly account balancing appears to the Board to be overly complex. The proposal could involve requirements to:

- forecast the annual storage capacity required for utility purposes
- determine appropriate fees to be paid by third parties for the remainder of the storage capacity,
- acquisition of gas volumes for injection into storage,
- forecast daily withdrawal/ injection volumes,
- potentially address contracting arrangements as between ATCO Gas, the storage operator and third parties with gas in storage in relation to any necessary borrowing or loaning of gas in any particular hour,
- assume an annual risk associated with the uncertainty of the cost/ benefit outcome with using Carbon storage[41].

The Board has noted that it considers daily account balancing on the ATCO Gas distribution system to be more consistent with the direction of the legislation than monthly account balancing. The Board has further noted that daily account balancing for ATCO Gas would be consistent with the ATCO Pipelines settlement for daily customer account balancing. The ATCO Pipelines account balancing rules require the FSU accounts to be balanced at the end of the gas day. The use of Carbon for load balancing would not appear to be practical in the context of a tight FSU Account balancing window at the end of the gas day. Further, even if Carbon storage was utilized throughout the gas day, as proposed by Calgary, the above noted disadvantages, complexities and uncertainties would, in the Board's view, outweigh any potential advantages.

In contrast, the use of the Y Day instrument seems to be a more practical and efficient alternative, with adequate liquidity in most typical circumstances and with minimal incremental

[41] The Summary Table A of Appendix A of Calgary's Evidence (updated by IR AGS-CAL-23(b) purports to illustrate for the four scenarios presented, the net costs or surplus associated with utilizing Carbon storage. This table indicates the potential economic risks and uncertainties with the utilization of Carbon storage for monthly account balancing in any given year.

administrative costs[42].[43] Evidence in this proceeding[44] indicates that DERS has not required the use of storage, and has used the Y Day instrument since taking over the DSP and load balancing functions from AG in May 2004, with a reduction in the Y Day transactions since the implementation of daily account balancing on ATCO Pipelines.

ATCO Gas raised concerns about the restrictions and limitations to third party storage services that are inherent in Calgary's proposal.[45] The Board considers that some of these concerns are well founded.

The Board has also considered whether the Calgary concept for Carbon storage utilization for load balancing is appropriate with respect to daily customer account balancing. The Board has noted that daily account balancing significantly reduces the volumes of gas required by ATCO Gas for load balancing. In the context of these lower volumes the need for and use of Carbon is less clear, especially given the annual risk associated with the uncertainty of the cost/ benefit outcome accompanying the use of Carbon as referred to above. The Board notes that no party appeared to support this alternative and the Board does not consider that the evidence in this proceeding would support that concept.

As a finding of fact, the Board has determined that the Calgary proposal:

- is overly complicated and unclear both as to annual development of storage requirements and as to the actual daily mechanics to be employed;
- provides ambiguous benefits when compared to potential risks and costs to be borne by ratepayers;
- has implications with respect to retail competition given the reduction in volumes that would be controlled and supplied by the DSP/retailers; and
- indicates a potential to impact third party storage arrangements.

Overall, the Board found the Calgary evidence with respect to monthly account balancing using Carbon storage in connection with load balancing of the ATCO Gas distribution system to be unpersuasive.

For all of the above reasons the Board rejects the Calgary proposal to utilize the Carbon storage facility.

Conclusion – Daily vs. Monthly

After considering the evidence and the viewpoints of parties in this proceeding, the Board has concluded that daily customer account balancing is a more appropriate process than monthly

[42] At Page 21-22 of its Written Evidence ATCO Gas states:
In order to execute purchases/sales using the YD Instrument, ATCO Gas would require trading access to NGX. The annual cost for the NGX screen needed to purchase or sell the YD Instrument is about $18 thousand. ATCO Gas notes that the advantages of YD gas include its availability during ATCO Gas' load balancing time (when the requirement is known), requires no reservation of deliverability or minimum purchase/sale, is transacted in lump sum energy, applies to the gas day being balanced, is not susceptible to operating conditions and the administration costs are minimal. ATCO Gas considers that YD gas is clearly the most reasonable and cost-effective gas source for load balancing its FSU account(s).

[43] ATCO Gas further elaborates on using the YD instrument for balancing its FSU accounts and contrasts the costs of using storage with the costs of using the YD instrument for balancing its FSU accounts in Attachment 1, section 2.1.1, pages 3-4, and section 3, page 16 of its Written Evidence.

[44] Transcript pages 322-323 and Exhibit 78

[45] Reference ATCO Gas Rebuttal Evidence, page 19

customer account balancing for ATCO Gas Retailer Service. In addition, while Calgary suggested that ATCO Gas could offer retailers a choice of daily or monthly account balancing and CCA suggested that the DSP should operate to a zero daily balance, the Board agrees with Nexen that the notion of having two or more balancing alternatives would increase the complexity and costs to administer, separate out, allocate and settle within the various rate classes and balancing procedures. ATCO Gas and DERS also believed that the account balancing methodology should be the same for all parties.

Accordingly, the Board approves the concept of daily customer account balancing for all retailers, self-retailers and the DSP on the ATCO Gas system.

Daily Account Balancing - Implementation

ENMAX provided the following recommendation with respect to the level of detail that ought to be approved in this Decision as noted below:[46]

> EEC submits that the EUB's decision on Modules 1 and 2 should be confined to determining whether or not daily account balancing ("DAB") should be pursued. The decision on these first modules should not, in EEC's respectful submission, establish any of the detailed components. Rather, these should be left for future modules, and in this regard, EEC strongly supports a continued collaborative approach in which as many issues as possible are resolved through consensus. The development of these detailed components are particularly well suited to a collaborative approach, in EEC's respectful submission. This collaborative process should include input from stakeholders into the development of the forecasting and backcasting methodology.

DERS and DEP provided a similar viewpoint to that of ENMAX. The Board concurs with these views and considers that the approval for daily customer account balancing is an approval in principle, based on the understanding that future testing and development of ATCO Gas procedures will be required to ascertain the acceptable levels of accuracy in load forecasting methodologies to support the necessary procedures.

The Board anticipates these procedures could include the following types of considerations:

- Forecasting methodologies
- Backcasting methodologies
- Timing of forecasting and backcasting processes
- Assess volumetric and price risk perspectives
- Assess site by site accuracy
- Assess aggregated accuracy for groups of customers as expected for a retailer
- Customer profiling methodologies
- Assess types of occurrences and frequency of any DFSS model error conditions
- Delivered accuracy
- Acceptable accuracy
- Alternative approaches if required
- Board adjudication of any disagreements of among parties if necessary

[46] ENMAX Argument, page 1

The Board notes that DERS/DEP recommended that the Board adopt a distinct fallback alternative in the event that the accuracy and logistics concerns associated with daily account balancing should prove to be insurmountable. The Board concurs with ATCO Gas that it would be more appropriate to further assess the circumstances associated with any accuracy issues at a subsequent time when appropriate information is available rather than implement a more speculative alternative solution at this time.

5.3 Account Imbalance Window

As described in the ATCO Gas Evidence, ATCO Gas proposes to produce three forecasts as follows:

1. Each day, a forecast is completed and reviewed for the current gas day for each retailer.
2. Each day, an updated forecast is completed and reviewed for the current gas day for each retailer using more current temperature information.
3. Each day, a forecast is completed and reviewed for the next gas day for each retailer.

Each morning, a backcast for the previous gas day is proposed to be completed for each retailer. This daily backcast is envisioned as the best available estimate (prior to settlement) of the retailer's customers' consumption for the previous gas day. ATCO Gas proposes to utilize a complex DFSS model, involving numerous forecasting procedures, to calculate the previous gas day's usage by using actual temperatures in a backcasting model. After the meter has been read, the consumptions allocated to each retailer's end-use site each day are referred to as settlement. ATCO Gas considered that the difference between the backcast and settlement, or backcast/settlement variance, is an important consideration in the determination of the minimum range for the imbalance window.

ATCO considered that since both the backcast/settlement variance, as well as the system loss variance, are not known at the time they occur, some leeway in account balancing is appropriate. ATCO Gas referred to this tolerance as the imbalance window, which would establish the range of positive and negative imbalances within which a retailer account would be considered to be balanced.

ATCO Gas considered that for the imbalance window to be meaningful, mechanisms to deal with imbalances outside the window would need to be established with provision to settle retailer account imbalances outside the window each day by purchase or sale with a load balancing account.

In relation to the account components discussed in Section 5.1, ATCO Gas defined the concept of account imbalance as follows:

> Account imbalance = receipt - delivery - Rider D recovery - imbalance purchases + imbalance sales + adjustments

In its Application ATCO Gas requested that the imbalance tolerance, or imbalance window percentage, be established as ±5% of daily account backcast delivery, with the provision of a minimum daily energy imbalance window of ±500 GJ/d for accounts where the daily delivery is equal to or less than 5,000 GJ/d and a minimum of ±1,000 GJ/d for accounts where daily

delivery is greater than 5,000 GJ/d. Further, ATCO Gas has indicated that these components of its daily account balancing proposal may need to be adjusted as a result of the testing of the DFSS.

ATCO Gas considered that the purpose of the imbalance window was, first, to recognize that while the backcast delivery would be the best available estimate, it would ultimately differ from the settlement delivery, therefore a backcast/settlement variance would be inevitable. Second, ATCO Gas intended that the imbalance window would constrain the effect of account imbalances on the aggregate daily load balancing requirement.

ATCO Gas proposed that account imbalances that are outside the window would be purchased or sold each day to bring each retailer or DSP account imbalance to the nearest imbalance window daily boundary. ATCO Gas proposed to utilize the ±5% imbalance window currently used in the Rate 13 procedures.

ATCO Gas considered that minimum energy imbalance windows would recognize that with small daily account deliveries it may not be practical for a small retailer to adjust its daily gas supply in order to maintain its account within a daily percentage imbalance window. In this regard, ATCO Gas adopted the tolerances established in the ATCO Pipelines settlement approved in Board Order U2005-221.

Calgary considered that with its monthly balancing proposal there would be no requirement for an imbalance window, similar to the current administration of Rate 11. Additionally Calgary saw no merit in the ATCO Gas perspective that an imbalance window would constrain the effect of account imbalances on the aggregate daily load balancing requirement. AUMA/EDM/UCA opposed the concept of an imbalance window, and considered that the imbalance window currently utilized for Rate 13 should be eliminated. AUMA/EDM/UCA and CCA considered that the use of an imbalance window could facilitate gaming, particularly to the advantage of larger retailers.

The concept of an imbalance window was supported by all retailers and the DSP. AES clarified its position with regard to an imbalance window in the context of daily customer account balancing as follows:[47]

> In the event that the Board approves the ATCO daily balancing proposal, we believe it is fundamental that a tolerance window is required and further, the tolerance window (%) needs to be rationalized against the level of accuracy and also the consistency of the level of accuracy produced by ATCO's estimates and forecasts over time.
>
> The % tolerance band and the consistency of the accuracy level of the estimates will have a direct relationship to the costs to be incurred by customers under this approach.

The Board concurs with the position expressed by AES that in the context of daily customer account balancing, utilization of an imbalance window is appropriate and that it also must be realistic given the consistency and accuracy of the imbalance estimates. The Board considers that use of an imbalance window in the order of ±5% is likely reasonable in the context of there being an inevitable element of deviation or variance between estimated delivery and settled delivery.

[47] AES Argument, page 2

The Board anticipates that the appropriateness of the ±5% will be reassessed in the context of the accuracy associated with future testing and analysis of variables such as DFSS accuracy.

The Board approves the concept of an imbalance window in the order of magnitude of ±5% with the final amount subject to further testing and discussion among interested parties in Module 3.

Similarly, the Board considers that utilization of a conceptual minimum daily energy imbalance window of ±500 GJ/d for accounts where the daily delivery is equal to or less than 5,000 GJ/d and a minimum of ±1,000 GJ/d for accounts where daily delivery is greater than 5,000 GJ/d appears reasonable, subject to further testing and analysis among interested parties in Module 3. No parties expressed a concern with these minimum values during the proceeding.

5.4 Imbalance Settlement

This section addresses the topic of whether the daily imbalances outside of the tolerance thresholds ought to be settled financially or subsequently replaced with gas in kind.

ATCO Gas requested approval that each day, the daily account imbalance energy amounts outside the nearest account daily imbalance window boundary, calculated by multiplying the daily backcast by the ±imbalance window percentage, be automatically removed from, by imbalance purchase, or added to, by imbalance sale, the DSP/retailer's account(s) and settled financially at a purchase price of 75% of the Daily Index and a sale price of 130% of the Daily Index for that day.

Nexen summarized its perspectives on imbalance settlement as follows:[48]

> There are two settlement periods at issue under a daily account balancing process – daily and month-end. Daily settlements would be for imbalances outside of the tolerance windows and are viewed as a penalty for not bringing one's account to within the tolerance band. In general Nexen does not support financial penalties, but views that this is the only appropriate method of control over daily imbalances as ATCO Gas does not have the ability to curtail supply or consumption. Nexen agrees that in the settlement of imbalances outside of the tolerance window the price needs to be greater than the daily index average in order to encourage retailers to react to their imbalances. ATCO Gas has recommended financial settlements at a purchase price of 75% of the Daily Index and a sale price of 130% of the Daily Index for that day. Nexen proposes that these settlement amounts should be further discussed and developed as part of Module 3.
>
> Month-end settlements result from prior month adjustments and should be included in the retailers' account in the month following the month in which they occurred. These volumes should then be worked off, in-kind, equally each day in the month as proposed in ATCO Gas' evidence (ATCO Gas Evidence, February 3, 2006, Page 9, Lines 34-35 and Page 10, Lines 1-2). Nexen does not support financial settlement of month-end imbalances as it is preferential to manage and control its supply obligations without a third party (ATCO Gas) creating a price risk that it has no ability to manage.

The Board considers that Nexen has provided a succinct perspective on imbalance settlement. The Board addresses the perspective of treatment of the monthly element of settlement in Section 5.1 of this Decision. In that section the Board agrees that it would be reasonable to carry

[48] Nexen Argument, page 7

forward the month-end settlements that result from prior month adjustments and that they should be included in the retailers' account in the month following the month in which they occurred.

The Board notes that Calgary and AUMA/EDM/UCA also considered that if the gas used to correct the imbalance is SD gas or Y Day gas which is actually purchased or sold by ATCO Gas, then the settlement should be financial as it better aligns costs with cost causation and minimizes cash flow obligations.

The Board concurs with the recommendation that daily imbalances outside tolerance should be settled financially each day at a penalty price relative to the daily index. The Board further agrees that it is appropriate to allow the parties to further discuss the level of the proposed financial penalty amounts of 75%/130% of the daily index price in Module 3.

The Board approves the concept that each day, the daily account imbalance energy amounts outside the nearest account daily imbalance window boundary, calculated by multiplying the daily backcast by the ±imbalance window percentage, be automatically removed from, by imbalance purchase, or added to, by imbalance sale, the DSP/retailer's account(s) and settled financially, at a purchase price paid by ATCO Gas of 75% of the Daily Index and a sale price charged by ATCO Gas of 130% of the Daily Index for that day with the percentage penalties to be reviewed in Module 3. Inherent with this approval, the Board expects parties will review the backcast process with a view to determining the need for it, its accuracy, and pros and cons of alternative approaches.

5.5 Imbalance Calculation

ATCO Gas requested approval to calculate the imbalance by using the following formula:

> imbalance (GJ) = daily receipt (GJ) - daily delivery (GJ) - daily Rider D recovery (GJ) - daily imbalance purchase (GJ) + daily imbalance sale (GJ) + daily adjustment (GJ)

Given the findings above in other parts of Section 5, the Board considers it appropriate, and therefore approves, that ATCO Gas calculate the customer account imbalances using the formula noted above. The Board notes that the imbalance components above are defined in Section 5.1.

6 DFSS

In its Application, ATCO Gas is requesting approval of the following with respect to the DFSS:

- that the DFSS be approved for inclusion in rate base commencing in the year 2006 for the purpose of obtaining test data and assessing model accuracy as well as other functions the system will be used for; and
- that ATCO Gas be allowed to adjust its 2006 and 2007 GRA revenue requirement forecast to reflect the inclusion of DFSS in rate base commencing in the year 2006.

The Board notes that ATCO Gas provided a business case and documentation for proposed DFSS functionality in attachments 7 and 8 to the evidence.[49] In argument ATCO Gas noted that

[49] Exhibit 25

it was proceeding with the development of DFSS for two reasons and that it expected the system to be completed by November 1, 2006. Firstly, ATCO Gas submitted it needed DFSS for load balancing of its FSU account(s) on the ATCO Pipelines system.[50] Secondly, ATCO Gas stated that it was proceeding with a November 1, 2006 implementation to avoid delay in implementation of Retailer Service.[51]

DERS agreed that DFSS would be a useful tool for both forecasting and system settlement while expressing some concern about DFSS accuracy, which was not dependent upon whether daily account balancing was approved. DERS supported Board approval of the DFSS for inclusion in the 2006 rate base. AES supported ATCO Gas and submitted that it should be provided with the appropriate tools and systems to support the requirements of these processes.

The AUMA/EDM/UCA submitted that the objectives of DFSS were reasonable and that the Board should allow ATCO Gas to develop and test DFSS. However, they were concerned that the forecast costs of the project could escalate significantly as business rules are defined and the system tested. They suggested that the Board cap the rate base additions to the forecast plus a contingency of 10%. Calgary was concerned that the reservations expressed by DERS with respect to DFSS accuracy related to DFSS functionality were enough to defer the inclusion of DFSS in rate base until it has been proven to be a satisfactory forecast tool. CCA also proposed that DFSS not be included in rate base until it becomes used or required to be used, which CCA submitted would be when load balancing was implemented and not within the 2006 and 2007 test years.

The Board notes that the forecast impact on the total revenue requirement is a net reduction in costs for 2006 of $207,000 and an increase for 2007 of $914,000 and that the total forecast capital investment is $2.012 million.[52] In the ATCO Gas 2005-2007 GRA Phase I Decision 2006-004, issued January 27, 2006, the Board noted that no issues were raised during that hearing with respect to ATCO Gas's proposal to update the revenue requirement forecast once this current proceeding was completed. Further, in Decision 2006-004, the Board directed ATCO Gas to indicate the amount of any placeholder related to gas balancing in a Compliance filing.[53] In the Compliance filing Application the Board notes that no specific amount was included on Page 1 of 3 of the Placeholders Summary.[54]

The Board notes that the total capital forecast of $2.012 million and its inclusion in rate base and the revenue requirement is supported by the customers representing the largest use of the ATCO Gas system. The system is to be available for testing by November 2006;however, it will not be fully used and useful until implementation of new balancing rules following completion of Module 3. In addition, this forecast is based on the business case and detailed functionality specifications provided by ATCO Gas which need to be confirmed by future consultations with

[50] In Attachment 7 to its written evidence, p. 4, AG indicated that DFSS will provide daily forecasts and backcasts for non-SCADA distribution interconnections which AG submitted was necessary for load balancing.

[51] In its written evidence, p. 62, AG submitted that the One Bill Model processes allow retailers to enroll customers on a daily basis and this requires the utility to set up its settlement processes on a daily basis to ensure that it matches the retailer to the site correctly. AG indicated that the DFSS was developed to meet these settlement processes and was required regardless of which customer account balancing methodology was put in place.

[52] Exhibit 37-30 AUMA-UCA-EDM-AG-17(a) page 1of 1

[53] Decision 2006-004 page 82

[54] Application 1452948 disposed of by Decision 2006-083

customers in Module 3 and subsequent testing. The Board shares the view of AUMA/EDM/UCA that costs should not be allowed to escalate and that capping expenditures based on the existing business case is appropriate.

Accordingly, the Board approves the total capital forecast of $2.012 million. Given that the DFSS is untested and will not be in service in 2006, the Board directs ATCO Gas to treat the 2006 costs as construction work in progress and record an allowance for funds used during construction (AFUDC) until the year of implementation of the DFSS. Based on the direction in Section 7 below, the Board expects the implementation date to be November 1, 2007 and therefore approves the ATCO Gas request to revise the 2007 revenue requirement to reflect the actual capital costs to a maximum of $2.012 million plus AFUDC in determination of the rate base. If as a result of the testing process discussed below, the forecast costs are in excess of this amount, the Board directs ATCO Gas to separately document by way of a business case the reasons for any additional expenditures before the Board will consider the possible inclusion of such costs in the rate base for future GRA test periods.

7 IMPLEMENTATION/TESTING

In argument ATCO Gas submitted that the Board should approve daily account balancing and direct ATCO Gas to commence Module 3 processes to fine tune the parameters around daily account balancing, which would encompass DFSS testing as originally intended. In the ATCO Gas response to the undertaking provided during cross examination[55] to Board Counsel about the potential accuracy of forecasts produced by DFSS, ATCO Gas responded to the suggestion of a pilot test that would include accuracy testing as Module 3A between November 1, 2006 and February 28, 2007 and include an information workshop on the results. Module 3A would be followed by Module 3B to finalize models and parameters for DFSS and address GasTIS[56] requirements and final implementation and transition issues.

ATCO Gas clarified that it was not seeking approval of any pilot test program, nor did it view that one was warranted, but if the Board viewed one was necessary, ATCO Gas considered it should be minimized. ATCO Gas had indicated that DFSS would be ready to test by November 1, 2006 and suggested that Module 3 could commence as soon as the Board issues its decision to this proceeding. A collaborative process could be established to discuss issues such as forecast models, test parameters, length of testing, etc. Given that it will require at least a year to implement its GasTIS system ATCO Gas submitted that there is nothing to prevent a testing period of a year occurring if parties view that length of time is required.

DERS submitted that a full one-year test of DFSS was required and that stakeholder participation in the development of model performance metrics, DFSS testing, and fine-tuning was essential. It suggested that the parties could, as necessary, seek direction from the Board in the event of disputes. DERS proposed that following the completion of the testing, ATCO Gas and the stakeholders could then consider if agreement could be reached on whether or not model accuracy is sufficient to support Board approval for implementation of daily account balancing.

[55] Exhibit 74
[56] Gas Transportation Information System for electronic provision of account information to retailer and DSP customers

Nexen agreed that accuracy of the DFSS is a concern, but submitted that accuracy issues should be well identified within several months. It suggested that balancing procedures could be phased-in with benchmarks and reviews to determine if the structures are working and appropriate and implementation of financial penalties could be part of a later phase once parties are comfortable that the balancing rules are appropriate. Similar to the ATCO Pipelines settlement process, provisions could be made for review and modification of procedures, if necessary, before moving to the next stage and penalty enforcement.

EEC also agreed with DERS that the DFSS must be tested and proven to be sufficiently accurate to allow for the implementation of daily account balancing. EEC supported a phased implementation that would be addressed as part of Module 3 with a minimum test period of one winter and two shoulder periods.

Calgary opposed daily balancing and submitted that its alternative balancing proposal could be implemented immediately following the Board's decision. However, Calgary observed that relying on four months of data for a test to determine accuracy of a program as complex as the DFSS does not likely reflect a satisfactory test period.

CCA did not see benefits of a pilot test of the DFSS system and opposed one if it would increase implementation time of daily load balancing.

ATCO Gas also recommended that DERS continue to be responsible for balancing the ATCO Gas' FSU account(s) until such time as the account balancing rules for all parties have been implemented, but submitted that the Board should not establish a specific date for a turn over of responsibility at this time. If the Board does not agree that this should continue during the transition period, or in the event that DERS seeks to have this responsibility removed at an earlier time, the Board would need to approve the establishment of an ATCO Gas' Load Balancing Deferral Account and to establish what customer account balancing rules would be applicable to DERS in the interim.

DERS expressed its willingness to continue to provide the system load balancing function for a reasonable period of time, but considered that the function should be transferred by November 1, 2007.

AUMA/EDM/UCA expressed concerns that the residual shipper situation for the DSP would likely continue into 2008, given the November 2006 completion date for DFSS and the one year implementation period for developing and implementing the GasTIS assuming Board approval of daily account balancing. It did not see any reason to prevent the load balancing function to be transferred to ATCO Gas sooner rather than later. The CCA also considered that further delay in removing other functions from the DSP should be minimized and that the Board should proceed with an aggressive timetable.

Although it is not necessary to link transfer of the load balancing responsibility from the DSP to ATCO Gas with the implementation of DFSS, the Board notes that it would be practical to implement the two changes simultaneously. ATCO Gas has stated that work associated with the development of the DFSS will be completed by November 1, 2006. Therefore the Board accepts its proposal to proceed immediately with Module 3 while working with customers to test the DFSS. Customers representing the majority of the volumes on the ATCO Gas system have indicated a willingness to work collaboratively to define tolerances and acceptability measures

for testing of DFSS and if resolution is not achieved further determinations by the Board would result. DERS and most other parties to the proceeding indicated a preference for a one year testing period for DFSS. The Board agrees that a one year test period is desirable and the Board directs ATCO Gas to conduct a one year test of the DFSS system commencing November 1, 2006. Accordingly, a pilot test period will not be required.

The Board notes the preference of DERS to end its load balancing role no later than November 1, 2007. However, the Board has also earlier referenced the preference of DERS and of most other participants in this proceeding for a one year testing period of the DFSS. The Board is also aware of the need to provide parties the opportunity to analyze the test period results, work collaboratively through the Module 3 process and to resolve transitional issues with DERS. Accordingly, the Board expects ATCO Gas to work collaboratively with DERS, retailers and other stakeholders to prepare a transition and implementation plan to assume from DERS the load balancing function for the distribution system as soon as reasonably practicable.

8 LOAD BALANCING

8.1 Balancing ATCO Gas's FSU Accounts

As outlined in Section 4.1, the Board accepted that physical load balancing of the ATCO Gas distribution system occurs on a real-time basis automatically through connections with the ATCO Pipelines system. The Board also accepted that this physical load balancing is achieved through ATCO Pipelines' distribution company delivery service which requires ATCO Gas to hold North and South FSU accounts on ATCO Pipelines.

The Board has also accepted that retailers and the DSP should provide receipts into the ATCO Gas FSU accounts and that the difference between these receipts and physical deliveries from the ATCO Gas distribution system would be the measure of the load balancing requirement.

In Section 4 the Board endorsed daily account balancing for Retailers and the DSP on the ATCO Gas distribution system and the Board has also endorsed the concept of an imbalance window for the Retailer and DSP accounts. However, the magnitude of the potential imbalance window is subject to testing in Module 3.

In regard to the ATCO Pipelines system, the Board notes that the final customer account balancing rules, including the imbalance window provision applicable to ATCO Gas's FSU accounts, have not been determined and approved by the Board.

While the Board recognizes that ATCO Gas has suggested that the Board should not displace the judgment of its management in the day-to-day operation of its FSU accounts and that it was not seeking Board approval of the mechanism used to balance its FSU accounts beyond the approval of daily account balancing,[57] the Board considers it appropriate to address the possible approaches that ATCO Gas could use to balance its FSU accounts and factors it could consider.

[57] AG Argument, p. 27

ATCO Gas indicated that it considered all the tools available to it to balance its FSU accounts and argued that the YD Instrument[58] was the most cost effective, ideally suited source for this purpose.[59] DERS concurred with ATCO Gas's assessment of the YD instrument[60] and submitted that the YD instrument has proven to be an efficient transactional mechanism for load balancing[61].

Calgary did not believe that there was any merit to limiting the options or tools with which to load balance the ATCO Gas/ATCO Pipelines system and to manage the balances in the FSU account, which could reduce flexibility and increase the cost of load balancing.

The CCA indicated that to the extent that a combination of alternatives was implemented, the costs of the alternatives should be paid by the party utilizing the service.[62]

Calgary submitted that ATCO Gas could consider the following options to manage the load balancing function and for balancing its FSU Account:[63]

- the injection and withdrawal of gas from storage sites including Carbon;
- the purchase or sale of physical gas (e.g., SD gas);
- shifting part or all of the imbalance to upstream pipelines;[64] and
- effectively utilizing the tolerance windows on upstream pipelines.

Calgary argued that the mix of options that ATCO Gas should use at any particular point in time would depend on market conditions and ATCO Pipelines/ATCO Gas operating conditions.[65]

CCA indicated if Carbon and Salt Caverns could be utilized to reduce load balancing costs for customers, the assets should be utilized.

AUMA/EDM/UCA agreed with Calgary that Carbon was capable of providing load balancing and should be used to mitigate the use of both SD and YD instruments.

AUMA/EDM/UCA also agreed with the CCA that Salt Cavern Storage should be utilized to the extent possible to reduce load balancing costs on the ATCO Gas North system.

With respect to balancing ATCO Gas's FSU Account on ATCO Pipelines, Calgary submitted that there were two aspects to consider:[66]

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[58] On p. 21 of its written evidence, dated February 3, 2006, AG indicated that yesterday gas (YD) means gas where the purchase/sale transaction is recorded in the preceding gas day. For example, a YD trade executed on April 22 would be recorded in the April 21 gas day.

[59] AG Reply Argument, p. 33

[60] DERS Argument, p. 10

[61] DERS Reply Argument, p. 5

[62] CCA Argument, p. 6

[63] Calgary Argument, pp. 43-44. Calgary indicated that some distributors also use system line pack but noted that this option was apparently not available on AG.

[64] Calgary indicated that the extent to which AG drafts or packs AP without taking remedial action would be reflected as an imbalance in AG's FSU account, which would be balanced at the end of each day through the purchase or sale of YD gas

[65] Calgary Argument, p. 4

[66] Calgary Argument, pp. 42-43

- managing AG's load balancing activities associated with imbalances on AG/AP during the course of the day to reduce the imbalances recorded in AG's FSU account at the end of the day; and
- balancing the FSU account itself, at the end of each gas day.

Calgary submitted that ATCO Gas should actively manage its load balancing function in real time to ensure that the ATCO Gas system operates at safe operating pressures and that any imbalances created on ATCO Pipelines as a result of changing gas flows between ATCO Gas and ATCO Pipelines were addressed in a cost effective manner.[67]

ATCO Gas suggested that it could only balance its FSU account on an after the fact basis. ATCO Gas also indicated that the amount of daily gas supply provided by retailers and the DSP would establish the magnitude of the daily YD instrument required, but it would not change the way in which ATCO Gas's FSU accounts are balanced.

> The daily balancing of ATCO Gas' FSU account(s) is the consequence of all retailer's daily account balancing actions (or inactions). The aggregate quantity of daily retailers gas supply relative to aggregate daily interconnection station consumption determines the imbalance in ATCO Gas FSU account(s). ATCO Gas' FSU account(s) imbalance is determined in the 23rd hour of each gas day when both the total daily gas supply provided by retailers and the estimated deliveries at the interconnections is known. As ATCO Gas can only balance its FSU account(s) on an after the fact basis, load balancing in effect represents the monetization of gas flows that have already occurred through various transactions that ATCO Gas had no responsibility for, and no ability to control. It is important to note that the account balancing rules applicable to retailers directly establishes the potential range of imbalance in ATCO Gas' FSU account(s).
>
> ATCO Gas' FSU account(s) must be balanced within the applicable tolerance(s) each day according to the daily balancing rules generally adopted by the Alberta natural gas industry and, in particular, as approved by the Board for use by ATCO Pipelines. The balancing mechanism developed by the Alberta natural gas industry for this purpose is the YD Instrument.
>
> ATCO Gas believes that parties agree that a principal question to be decided by the Board in this proceeding is:
>
> How much of each distribution customer's daily consumption quantity should retailers, self-retailers and the DSP be required to provide in daily gas supply?
>
> The answer to this question does not change the way in which ATCO Gas' FSU account(s) are balanced – it simply establishes the potential magnitude of the daily YD Instrument transaction used to monetize the difference.[68]

Nexen agreed with ATCO Gas's assessment that the imbalances in its FSU accounts are not known until the 23rd hour of the day and until the customers have transacted on the YD instrument to bring their accounts within tolerance, ATCO Gas cannot transact to clear its FSU account imbalance. Nexen argued that once this was done, the only method available to ATCO

[67] Calgary Argument, p. 44
[68] AG Rebuttal Evidence, pp. 6-7

Gas was the YD instrument, through NGX on either ATCO Pipelines or the NGTL system, or by a title transfer transaction with a third party.[69]

ATCO Gas submitted that its FSU accounts were subject to the ATCO Pipelines terms and conditions, which include ATCO Pipelines Daily Account Balancing Customer Settlement[70]. ATCO Gas indicated that based on this settlement, ATCO Gas has between 7:00 AM on gas day 1 to 8:30 AM on gas day 2 (in other words from 7:00 AM to 8:30 AM each calendar day) in which to balance its account (the ATCO Gas Load Balancing Time) for gas day 1.[71] On this basis, ATCO Gas submitted that the source of gas supply used for balancing its FSU accounts must be available to ATCO Gas during this time.[72]

ATCO Gas indicated that the YD gas market available to address imbalances in its FSU Accounts for gas day 1 is open for trading from 6:30 AM on gas day 1 to 10:00 AM on gas day 2 (in other words from 6:30 AM to 10:00 AM each calendar day), with only the 7:00 AM to 8:30 AM portion of that time period falling within the ATCO Gas Load Balancing Time. ATCO Gas submitted that, in addition to its availability during the ATCO Gas Load Balancing Time, the YD instrument requires no reservation of deliverability or minimum purchase/sale, was transacted in lump sum energy, applies to the gas day being balanced, was not susceptible to operating conditions and the administration costs were minimal.[73]

In regard to sources of SD gas, ATCO Gas submitted that contracts associated with these sources were not available during the ATCO Gas Load Balancing Time because the SD market closes at 4:30 PM on gas day 1 well before the start of the ATCO Gas Load Balancing Time. On that basis, ATCO Gas rejected the use of these SD gas purchase/sales contracts as gas sources to be used for load balancing its FSU account(s).[74]

In regard to the use of storage for load balancing its FSU account, ATCO Gas submitted that based on the injection/withdrawal deliverability rate required,[75] ATCO Gas was not aware of any storage facility that could provide the required deliverability such that, upon short notice to inject/withdraw, it could be used to balance ATCO Gas's FSU accounts during the last hour of the gas day in order for ATCO Gas to get its FSU account within the allowable imbalance window. In addition, ATCO Gas argued that even if a storage facility with this capability did exist, it was highly unlikely that the connecting pipeline system would have sufficient capacity available to allow it to accommodate such a substantial gas flow for such a short period of time. On this basis, ATCO Gas rejected the use of gas storage for balancing its FSU accounts.[76]

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69 Nexen Argument, p. 8

70 The Daily Account Balancing Customer Settlement was approved by the Board in Order U2005-221.

71 As noted by AG and Nexen above, the imbalances for ATCO Gas' FSU accounts are determined in the 23rd hour of each gas day or 7:00 AM.

72 AG Written Evidence, pp. 17-18

73 AG Written Evidence, pp. 21-22

74 In AG's Written Evidence, p. 20, AG submitted that the portion of AG' load balancing time that was applicable to the same gas day (SD) occurs in the last hour of the gas day, between 7:00 AM and 8:00 AM. AG indicated that the remaining portion of AG's load balancing time from 8:00 AM to 8:30 AM applies to the next gas day (ND) and was not available to SD gas transactions. While AG described potential sources of SD gas purchase/sales for load balancing its FSU account(s), AG also argued that contracts associated with these sources were not available during the AG Load Balancing time because the market for SD gas closed at 4:30 PM of the previous day.

75 ±5,400 TJ/d (±225 TJ/1.0 hr/24 hr/d)

76 AG Written Evidence, p. 20

Nexen did not support the use of storage on the basis that storage could not be used for YD transactions and same day storage transactions would bring ATCO Gas back into gas services and remove control of gas supply services from retailers.[77]

The Board accepts that the imbalances in the ATCO Gas FSU accounts would not be known with much certainty until the latter part of a gas day and that under ATCO Gas's proposal, it cannot make the necessary transactions to clear its FSU account imbalances until retailers and the DSP have completed their final transactions. As a result there may be insufficient time available prior to the end of the gas day to make the necessary physical injections/withdraws into or out of storage to eliminate any likely imbalance in the FSU Accounts for that day. The Board has earlier considered and rejected the possibility of using Carbon storage on a consistent daily basis to deal with FSU account imbalances.[78]

While the Board has not been requested to give specific direction on how ATCO Gas is to balance its FSU accounts and understands that ATCO Gas wishes to rely exclusively on the YD instrument, the Board does make the following observation. The Board notes the linkage between distribution customer accounts and distribution load balancing requirements and expects that ATCO Gas would monitor its own FSU accounts in conjunction with the retailer and DSP accounts[79] throughout the day to ensure that relative to their respective initial load forecasts and updated forecasts, an expected magnitude and pattern of receipts (gas supply) are being provided during the course of a gas day by retailers and the DSP, so that in abnormal situations discussions would be held with account holders to determine what action they are planning to take so that ATCO Gas can plan an appropriate course of action.

Further, the Board notes that while the evidence in this proceeding would appear to indicate that there is normally sufficient liquidity in the YD instrument market to meet ATCO Gas's requirements to bring its FSU accounts back into balance, the Board also notes that unique circumstances could lead to system wide operational upsets and/or extreme prices for the YD instrument.[80] On this basis the Board considers that the FSU account and customer account monitoring function in conjunction with other ATCO Gas action might be appropriate in order to prevent the situation where ATCO Gas would have to rely strictly on the YD instrument or some unique customized arrangement in order to balance its FSU account in these extreme situations. For example, if ATCO Gas becomes aware that one or more large retailers and/or the DSP will be unable to provide a significant portion of its intended supply during a gas day with the expectation that this will result in large imbalances in ATCO Gas's FSU accounts, it may be

[77] Nexen Argument, pp. 7-8

[78] Reference Decision, page 29

[79] AG Written Evidence, p. 78. The Board notes that the requirements for a Gas Transportation Information System (GASTIS) will be established in Module 3 and that AG indicated that the purpose of GasTIS is to provide retailers with direct access to their accounts in order to observe their customer's aggregate consumptions, issue nominations and observe their account balances. GasTIS will also provide AG with the aggregation of supply nominations necessary to manage its distribution system load balancing and that the aggregation of supply nominations would be accomplished through an interface between AG' GASTIS and AP' TIS.

[80] Reference Transcript pages 322-323 and as outlined in Exhibit 78, DERS has used the YD instrument since taking over the DSP and load balancing functions from AG in May 2004. In this proceeding, DERS identified three events that led to liquidity problems for the YD instrument but these events occurred prior to April 1, 2006, the date on which AP implemented daily balancing. DERS submitted that AP's daily balancing reduced the YD transactions of DERS.

appropriate for ATCO Gas to utilize mechanisms other than the YD instrument to bring its FSU account back into balance. In such circumstances, the Board considers that Same Day gas and/or storage would provide ATCO Gas with other alternatives that it could use earlier within a gas day as part of its balancing of the distribution system. As discussed in Section 4.4, the Board outlined its expectation that ATCO Gas would have a load balancing contingency plan in place to deal with such unique situations.

For present purposes and in respect of normal load balancing conditions, the Board supports in principle the use of the YD instrument as proposed by ATCO Gas.

While the Board considers that ATCO Gas management should have the discretion to decide how to balance its FSU accounts on a daily basis, the Board also considers that ATCO Gas's load balancing actions, including the preparation and implementation of a load balancing contingency plan, could also be the subject of a prudence review in any proceeding which considers the load balancing services performed by ATCO Gas or any proceeding relating to the disposition of balances within the proposed LBDA. Further discussion on ATCO Gas's proposed load balancing deferral account and associated application to deal with this account are provided in the next two sections.

8.2 Load Balancing Deferral Account

In this section, the Board deals with ATCO Gas's requested approvals associated with its proposed load balancing deferral account (LBDA) and load balancing rate rider (LBRR).

FSU Account Imbalances

With respect to load balancing, ATCO Gas requested approval that load balancing purchases/sales to bring its FSU accounts on ATCO Pipelines into balance be accorded deferral account treatment in a LBDA.[81]

ATCO Gas submitted that deferral account treatment for load balancing revenues and expenses would be appropriate because the load balancing energy requirement cannot be determined in advance since the daily load balancing requirement in ATCO Gas's FSU accounts would be principally driven by retailers' daily account imbalances and these account imbalances cannot be forecast. ATCO Gas also argued that the daily market price cannot be forecast so the monies associated with each load balancing purchase/sale transaction cannot be determined in advance.[82]

While some parties did not agree with ATCO Gas's proposed customer account balancing[83] and load balancing[84] methods, and suggested that deferral accounts may not be required if other methods were implemented, no party that supported ATCO Gas's methods objected to deferral account treatment for load balancing revenues and expenses.

[81] AG Written Evidence, p. 9
[82] AG Written Evidence, p. 22
[83] Daily
[84] YD instrument for balancing the AG FSU accounts.

The Board agrees with ATCO Gas that the load balancing energy amounts and daily gas prices that would monetize such load balancing amounts cannot be forecast accurately and on that basis, the Board approves ATCO Gas's request that load balancing purchases/sales be granted deferral account treatment.

Customer Account Imbalances

ATCO Gas also requested approval that customer account imbalance purchase/sales be settled with the LBDA.[85] As discussed in Section 5.2, ATCO Gas proposed to establish a daily account imbalance window with a maximum accumulation of one day (i.e. daily imbalance purchase/sales). ATCO Gas also proposed to settle retailer account imbalances outside the window each day by purchase or sale with the LBDA. ATCO Gas indicated that the energy amount outside the window would be removed (purchased) from, or added (sold) into the retailer's account(s) so that the resulting account imbalance equals the nearest imbalance window boundary for that day.[86]

ATCO Gas submitted that account imbalances and the period of time over which retailer account imbalances are allowed to accumulate would be the principal contributors to the distribution system daily load balancing requirement. On this basis, ATCO Gas submitted that it was appropriate that retailer's account(s) imbalances outside the imbalance window should be settled by purchase/sale with the LBDA.[87]

While the parties opposed to ATCO Gas's approach to account balancing did not explicitly comment on ATCO Gas's concept of settling imbalance purchases and sales with the LBDA, no parties who supported ATCO Gas's daily account balancing proposal objected to the concept.

Given that the Board has endorsed the concept of a customer account imbalance window (Section 5.3) and the concept of using financial imbalance purchases or sales outside the tolerance window (Section 5.4), the Board agrees with ATCO Gas that it is reasonable that retailer's account(s) imbalances outside the imbalance window should be settled by purchase/sale with the LBDA. However, the Board also notes that final approval of daily customer account balancing and the associated imbalance window is subject to Module 3 assessments.

Therefore, at this time, the Board approves the concept of settling customer account imbalance purchase/sales with the LBDA.

8.3 Load Balancing Rate Rider

ATCO Gas proposed to derive a monthly LBRR and recover from or refund to end-use customers the actual load balancing expenses and revenues as recorded in the LBDA at the end of the month immediately before the month of recovery.[88]

In Reply Argument, ATCO Gas noted that several parties appeared to have a different interpretation of Decision 2005-081 regarding how the cost of load balancing was to be recovered.[89]

[85] AG Written Evidence, p. 9
[86] AG Written Evidence, p. 30
[87] AG Written Evidence, p. 52
[88] AG Written Evidence, pp. 22-23

Decision 2005-081 dealt with Part A of Phase 2, which was to establish conceptual account balancing and load balancing principles for retailer service. Three issues were addressed in the Decision including whether the cost of load balancing should be shared by all end use customers regardless of whether the end use customer obtains its gas from the DSP or a retailer.

In the current proceeding, AUMA/EDM/UCA considered that the daily account balancing costs for each retailer should be calculated, aggregated for the month and billed to each retailer at month end.[90] AUMA/EDM/UCA submitted that the Board should direct ATCO Gas to charge the LBRR to all retailers.[91]

The CCA considered that retailers which cause load balancing costs should be responsible for them.[92]

Calgary proposed, under its monthly account balancing regime, that each retailer would be required to settle any imbalances in its account in full financially at the end of each month and to the extent that storage was used, Calgary indicated that there may be an opportunity to allow retailers to settle at least part of their imbalances in kind.[93] Calgary submitted that under its proposed balancing regime, financial imbalances in the LBDA would be cleared at the end of each month and energy imbalances would be addressed over the following month. Calgary argued that this approach would eliminate the need for ATCO Gas's proposed regular monthly LBRR.[94]

In regard to the Calgary submission above, the Board notes the concept of daily account balancing has already been endorsed in Section 5.2, subject to testing and the Module 3 process.

The Board continues to consider that load balancing costs are part of the overall operation of the distribution system and that the findings in Decision 2005-081 noted below remain relevant, especially since the Board determined in Section 5.2, that it was appropriate that one customer account balancing approach should be used for all ATCO Gas retailers, self-retailers and the DSP:

> Overall, the Board considers that the Load Balancing Costs would be generated in association with the overall operation of the distribution system, and to the extent that equitable and appropriate customer account balancing procedures are developed, these Load Balancing Costs should be collected from or refunded to all customers whether they are served by the DSP or retailers.
>
> Accordingly, the Board considers that the Load Balancing Costs (positive and negative) should be recovered from or refunded to all end use customers regardless of whether they are served from the DSP or a retailer.[95]

89 AG Reply Argument, p. 38
90 AUMA/EDM/UCA Argument, p. 6
91 AUMA/EDM/UCA Argument, p. 5
92 CCA Argument, p. 20
93 Calgary Argument, p. 59, Calgary Written Evidence, p. 28
94 Calgary Argument, p. 59
95 Decision 2005-081, p. 8

ATCO Gas filed a mock LBRR application (the LBRR Application).[96] A sample of ATCO Gas's proposed derivation of the monthly LBRR was shown in Sample Schedule LBF-1 of the LBRR Application.[97] ATCO Gas submitted that its proposal for a monthly LBRR was appropriate and should be approved since the Board has clearly stated that timely and accurate price signals were an important consideration in reflecting actual costs in gas rates.[98]

In response to ATCO Gas's submission, AUMA/EDM/UCA indicated that, if timely and accurate price signals were truly an important consideration in reflecting actual costs in gas rates, there should be financial settlement at month end because settlement in-kind over the following month exacerbates volatility.[99]

While the Board acknowledges the AUMA/EDM/UCA response above, the Board has already approved in Section 5.1 the notion of allocating prior month(s) adjustments (including backcast/settlement variance) in the retailer's account(s) in the first month following the month in which they have been determined.

Calgary submitted that ATCO Gas's proposed LBRR would over recover any balances remaining in its LBDA at the end of each month creating unnecessary instability or variability in end-user invoices. Calgary argued that under ATCO Gas's approach, ATCO Gas would recover the financial cost of balancing the FSU account from end-users, while at the same time requiring the retailers and the DSP to make adjustments in kind for that gas that caused most of the financial cost reflected in the deferral account and recovered in the LBRR.[100]

ATCO Gas rejected Calgary's claims that it would be double-recovering imbalances in its load balancing account every month.[101] ATCO Gas argued that based on its proposal, the daily load balancing requirement was the daily YD Instrument transaction, which was the financial consequence that would result when the daily distribution business exceeded the daily transmission tolerance. ATCO Gas submitted that the accumulation of the daily YD Instrument transactions over a month would represent the degree to which retailers fail to provide the gas supply needed to meet distribution customer's consumption. ATCO Gas argued that there cannot be a double recovery since the YD Instrument transaction arises because retailers did not undertake the transactions themselves.[102]

Using the Rate 11 Like scenario from ATCO Gas's Written Evidence (attachment 5), Calgary provided an illustration that it argued clearly showed that ATCO Gas's proposed LBRR would over collect LBDA balances causing perpetual imbalances in the LBDA and perpetual riders. Calgary also argued that this same problem occurs under ATCO Gas's proposed regime of daily account balancing,[103] except that instead of the volume for the month, the over collection relates to the last day of the month.

[96] AG Written Evidence, Attachment 4.
[97] AG Written Evidence, pp. 22-23
[98] AG Argument, p. 32
[99] AUMA/EDM/UCA Reply, p. 9
[100] Calgary Argument, p. 55
[101] Calgary Written Evidence, p. 37
[102] AG Rebuttal Evidence, p. 15
[103] Exhibit 25-1, Tab "Daily 5% (Expected)"

While the Board notes that Calgary argued that the Board should disregard ATCO Gas's conclusions in regard to the effect of various customer account balancing alternatives on the load balancing purchase/sale requirement and the LBRR (ATCO Gas Written Evidence Attachment 5), the Board considers that the historical data and associated findings provide some directional indication of the potential load balancing purchase/sale requirement for the various account balancing methodologies and imbalance windows.

Given that the Board has approved the concepts of daily balancing and an imbalance window, the Board notes that Charts 11 and 12[104] give some indication of the potential magnitude[105] and direction (charge or refund) of a monthly LBRR associated with daily account balancing with a 5% imbalance window and 10% imbalance window respectively.

While the Board acknowledges that the final distribution customer account methodology and imbalance window have not yet been determined, the Board considers that ATCO Gas's proposed customer account balancing approach in conjunction with its proposed LBDA and monthly LBRR would lead to perpetual imbalances in the LBDA and perpetual riders. While this in itself may not be problematic[106], given the preliminary indication of the relatively small potential magnitude of the LBRR as discussed above[107] and the fact that the balance in the LBDA is expected to shift between positive and negative balances, the Board agrees with Calgary[108] at this time, that a more effective method of dealing with balances in the LBDA, would be to carry the balances forward to future months and in the event that the monthly balance reaches $2 million, ATCO Gas could apply to the Board to clear the account through a one time rate rider. This revised method should also reduce regulatory costs relative to the ATCO Gas proposal. The Board also considers that ATCO Gas may want to give consideration to combining the LBDA balance with other ATCO Gas deferral account balances for disposition in some manner. While the Board has provided a $2 million threshold at this time, the Board is prepared to allow parties to discuss this matter further in Module 3 and to propose any changes to the Board based on agreement by the parties.

ATCO Gas proposed to file an LBRR application each month in a process similar to the current DERS Gas Cost Flow-through Rate (GCFR) process. ATCO Gas filed the LBRR Application and proposed that the application would contain load balancing revenues and expenses,[109] load balancing energy,[110] derivation of the LBRR[111] and daily load balancing transactions for the three

[104] AG Written Evidence, p. 58

[105] The LBRR under the 5% daily imbalance window alternative varies between a charge of $0.001/GJ to $0.050/GJ and a refund of $0.004/GJ to $0.054/GJ over the 12 month period of data. The LBRR under the 10% daily imbalance window alternative varies between a charge of $0.002/GJ to $0.099/GJ and a refund of $0.007/GJ to $0.108/GJ over the same 12 month period.

[106] The Board notes that a somewhat similar process is conducted for DERS' Gas Cost Flow-through Rate.

[107] In regard to the load balancing requirements (purchases/sales) identified in Attachment 5 and the resulting LBRRs outlined in Charts 11 and 12, it appears to the Board that AG determined the load balancing requirements assuming that it could not reduce such requirements by utilizing any potential imbalance window afforded to it for its own account, which allows it to perform the load balancing function. In other words, a zero imbalance strategy. In practice however, AG submitted in the hearing (Tr. pp. 111-113) that if its FSU account was within the allowable imbalance window, it would do nothing and thereby minimize load balancing transactions.

[108] Calgary Evidence, p. 37

[109] Sample Schedule LB-1

[110] Sample Schedule LB-2

[111] Sample Schedule LBF-1

months prior to the LBRR month.[112] ATCO Gas also proposed to include carrying charges based on the interest rate as set out in Information Letter 2000-1.[113]

ATCO Gas requested approval of the format and content of the LBRR Application, but also noted that the LBRR Application may need to be fine-tuned subsequent to the Board's decision on retailer account balancing rules and after the DFSS was implemented[114].[115]

While ATCO Gas specifically requested approval to include load balancing transactions and account imbalance settlements in the LBDA, which the Board approved in Section 8.2 above, the Board notes that ATCO Gas did not explicitly request approval for the "Other Charges" shown in Sample Schedule LB-1. The Board notes that the Other Charges include ATCO Pipelines charges associated with Other Pipeline Receipt service and Other Pipeline Delivery Commodity service, credit charges and the carrying charges noted above. The Board also notes that ATCO Gas did not specifically include adjustments related to its FSU account that may be required if ATCO Pipelines sought recovery or provided refunds associated with the balances in its transmission load balancing account(s).

Given the finding above that a monthly LBRR application is not approved as an optimal solution at this time, and given that further fine tuning of the LBDA disposition application is expected, as noted by ATCO Gas above, the Board considers that the level of detail provided in Attachment 4 to ATCO Gas's Written Evidence appears reasonable at this time.

The Board directs ATCO Gas as part of the Module 3 process to outline the specific components it considers should be part of the LBDA and that were not explicitly approved as part of this Decision. The Board notes that no parties commented specifically on the format and content of the LBRR Application.

9 IS THE CARBON STORAGE FACILITY USED OR REQUIRED TO BE USED, OR SHOULD IT OTHERWISE REMAIN IN RATE BASE IN CONNECTION WITH THE LOAD BALANCING OF THE ATCO GAS DISTRIBUTION SYSTEM?

In its letter of October 3, 2005, the Board addressed the potential for overlap between the ATCO Gas South 2005/2006 Carbon Storage Plan Part 1 Module (the Carbon Part 1 Module) associated with Application No. 1357130 and this Application insofar as they relate to a consideration of the potential use of the Carbon storage facility in connection with load balancing of the ATCO Gas system. One of the purposes of the Carbon Part 1 Module was to determine if the Carbon storage facility is used or required to be used to provide service to the public, or should it otherwise remain in rate base in connection with the load balancing of the ATCO Gas distribution system. The Board concluded that, in the interests of efficiency and completeness, it would be appropriate for the issues related to load balancing, including the use of physical storage, to be assessed through a single process within this Application.

[112] Sample Schedules LBR-1, LBR-2 and LBR-3
[113] AG Written Evidence, pp. 22-23
[114] AG submitted that the DFSS would provide daily retailer consumptions necessary to evaluate the potential impact of account imbalances to the load balancing requirement.
[115] AG Written Evidence, p. 23

In this section the Board will review the positions of parties and provide its determination with respect to the question of whether or not the Carbon storage facility is used or required to be used to provide service to the public, or should otherwise remain in rate base in connection with the load balancing of the ATCO Gas distribution system.

Calgary maintained that Carbon could be used for load balancing and that if the economics to use it for such are favourable then it should be used. Calgary provided a detailed proposal and an analysis to support the view that Carbon would be both practical and beneficial to the customer. To address the question Calgary put forward an analysis of four cases of different levels of use of the Carbon storage capacity (43.5, 25, 21.4, and 15 PJ out of the total volumetric capacity of Carbon of 43.5 PJ) that would be dedicated to third-party contract storage with the balance available for load balancing.[116] Based on its analysis, Calgary recommended that no particular level of storage be fixed for third party contract service; rather, the appropriate amount should be determined each year on the basis of an analysis that was made in advance of the storage year.[117]

The AUMA/EDM/UCA saw merit in a variation of the Calgary proposal raised by Board Counsel, which would require all suppliers to match their supply daily to a forecast supplied by ATCO Gas, but would not be required to further respond to ATCO Gas' proposed backcast.[118] The AUMA/EDM/UCA considered this as a possible compromise between the ATCO Gas and Calgary proposals. Regardless of the Board's finding with respect to the required form of account balancing for gas retailers and the DSP, the AUMA/UCA strongly supported the position that Carbon should be utilized as a source of supply for the physical or operational function of load balancing which must be performed, regardless of the status, in aggregate, of account balances.

ATCO rejected any consideration of using Carbon for load balancing claiming that storage was a function that as a distributor it was "forbidden" to carry out. If the Board accepts ATCO's position then the response to the question posed at the beginning of this section would be in the negative. However, as previously discussed in Section 4.4 of this Decision, the Board has discussed the interpretation of the legislation and concluded that ATCO's views in this regard are incorrect. Load balancing is the responsibility of the "gas distributor" and if that function could be done with the use of storage it would not be utilizing storage for "gas services" as contemplated by the legislation. The quantity of gas that would be held in storage by the gas distributor would not be used for the purposes of supplying gas to end use customers, rather the purpose would be to facilitate ATCO Gas in the performance of its physical load balancing of the distribution system. In this context ATCO Gas could use Carbon or any other storage facility should it require storage to perform its load balancing obligations.

Calgary's proposal for the utilization of Carbon storage for load balancing was premised on balancing customer accounts on a monthly basis, which could potentially require ATCO Gas to source large quantities of gas within each month which could be supplied in part through the utilization of significant storage capacity at Carbon. The Board has approved the use of daily account balancing in Section 5.2 above, subject to testing and the Module 3 process. With ATCO Gas customer accounts being brought into balance daily, the physical volumes to be acquired or sold by ATCO Gas each day to bring the ATCO Gas FSU accounts into balance would be

[116] Exhibit 043-02, Summary Table A, p. 9
[117] Exhibit 043-01,Q/A 22 and 23, p. 37-38
[118] Tr. 409

significantly less than if customer accounts were balanced monthly. The Board has also observed in Section 8.1 above, that there appears to be sufficient liquidity in the YD market to permit ATCO Gas to manage its FSU accounts utilizing the YD instrument, subject to the need for contingency planning which could involve storage or Same Day gas. Further, the management of the FSU accounts through the utilization of YD instruments appears to generate minimal cost, requiring very few resources, as discussed in Section 5.2. The utilization of storage in a contingency arrangement could be through third party commercial arrangements. There appears to be no requirement that a storage facility be owned and/or operated by ATCO Gas or otherwise included in rate base in order for ATCO Gas to make storage arrangements (at Carbon or any other storage facility) that could satisfy any such contingency requirement.

The Board notes that ATCO stated that it has not used Carbon in a utility function for at least five years and DERS indicated that storage has not been required for its purposes. The Board also notes that no retailer supported the use of Carbon for load balancing. Calgary acknowledged that Carbon was not presently being used by ATCO Gas for load balancing.[119]

Accordingly, for all of the above reasons, the Board does not see the need for ATCO Gas to own, maintain and operate a storage facility for the purposes of meeting its load balancing obligations on the distribution system. Similarly, the Board does not see the need for ATCO Gas to own, maintain and operate the natural gas producing properties associated with the Carbon storage facility for the purposes of performing its load settlement obligations. Based on the facts, evidence and argument of the parties on the record of this proceeding, the Board finds that the Carbon storage facility (including the associated producing properties) is not used or required to be used to provide service to the public, nor should it otherwise remain in rate base, in connection with the load balancing of the ATCO Gas distribution system.

[119] Tr. 472

10 ORDER

IT IS HEREBY ORDERED THAT:

(1) ATCO Gas shall implement the approvals and directions contained within this Decision in accordance with the Board's guidance provided therein.

Dated in Calgary, Alberta on October 10, 2006.

ALBERTA ENERGY AND UTILITIES BOARD

(original signed by)

J. I. Douglas, FCA
Presiding Member

(original signed by)

B. T. McManus, Q.C.
Member

(original signed by)

C. Dahl Rees
Acting Member

APPENDIX 1 – HEARING PARTICIPANTS

Name of Organization (Abbreviation) Counsel or Representative (APPLICANTS)	Witnesses
ATCO Gas L. Smith K. Beattie J. Beckett	G. Engbloom D. McPhee D. Wilson R. Trovato
Alberta Energy Savings L.P. G. Potter	G. Potter C. Carr N. Kuriya
Alberta Urban Municipalities Association of Alberta (AUMA) and City of Edmonton J. A. Bryan	
City of Calgary P. Quinton-Campbell R. Brander	P. Milne H. Johnson H. Vander Veen P. Walsh
Consumers Coalition of Alberta (CCA) J. Wachowich	
Direct Energy Marketing Limited K. Miller	C. Davidson G. MacIntyre Y. Segal
Nexen Inc. S. Young	
Utilities Consumer Advocate (UCA) R. Henderson	

Alberta Energy and Utilities Board Board Panel J. I. Douglas, FCA, Presiding Member B. T. McManus, Q.C., Member C. Dahl Rees, Acting Member Board Staff B. McNulty (Board Counsel) A. Jin (Board Counsel) B. Shand H. Gnenz M. Hagan R. Armstrong	

APPENDIX 2 – SUMMARY OF BOARD DIRECTIONS

This section is provided for the convenience of readers. In the event of any difference between the Directions in this section and those in the main body of the Decision, the wording in the main body of the Decision shall prevail.

APPENDIX 3 – SUMMARY OF BOARD FINDINGS AND CONCLUSIONS

This section is provided for the convenience of readers. In the event of any difference between the Approvals in this section and those in the main body of the Decision, the wording in the main body of the Decision shall prevail.

1. Without prejudging the outcomes in subsequent sections of this Decision, the Board considers it appropriate to generically conclude that each customer account will include receipts, deliveries, Rider D, any applicable imbalance purchases and sales, and prior period adjustments. 19
2. In relation to prior period adjustments, ATCO Gas requested approval that prior month(s) adjustments be included in the DSP and retailer's account(s) in the first month following the month in which they have been determined and that they be worked off equally each day in the month, with any required correction for rounding included in the last day of the month. The Board notes that this is generally analogous to the treatment of prior period imbalance quantities currently utilized by ATCO Gas for Rate 13 service. No parties expressed concerns specifically in relation to this treatment of prior period adjustments and the Board considers that it is reasonable..... 19
3. After considering the evidence and the viewpoints of parties in this proceeding, the Board has concluded that daily customer account balancing is a more appropriate process than monthly customer account balancing for ATCO Gas Retailer Service. In addition, while Calgary suggested that ATCO Gas could offer retailers a choice of daily or monthly account balancing and CCA suggested that the DSP should operate to a zero daily balance, the Board agrees with Nexen that the notion of having two or more balancing alternatives would increase the complexity and costs to administer, separate out, allocate and settle within the various rate classes and balancing procedures. ATCO Gas and DERS also believed that the account balancing methodology should be the same for all parties..... 30
4. Accordingly, the Board approves the concept of daily customer account balancing for all retailers, self-retailers and the DSP on the ATCO Gas system..... 31
5. DERS and DEP provided a similar viewpoint to that of ENMAX. The Board concurs with these views and considers that the approval for daily customer account balancing is an approval in principle, based on the understanding that future testing and development of ATCO Gas procedures will be required to ascertain the acceptable levels of accuracy in load forecasting methodologies to support the necessary procedures. 31
6. The Board approves the concept of an imbalance window in the order of magnitude of ±5% with the final amount subject to further testing and discussion among interested parties in Module 3. 34
7. Similarly, the Board considers that utilization of a conceptual minimum daily energy imbalance window of ±500 GJ/d for accounts where the daily delivery is equal to or less than 5,000 GJ/d and a minimum of ±1,000 GJ/d for accounts where daily delivery is greater than 5,000 GJ/d appears reasonable, subject to further testing and analysis among interested parties in Module 3. No parties expressed a concern with these minimum values during the proceeding..... 34
8. The Board approves the concept that each day, the daily account imbalance energy amounts outside the nearest account daily imbalance window boundary, calculated by multiplying the daily backcast by the ±imbalance window percentage, be automatically removed from, by

APPENDIX 4 – ABBREVIATIONS

Abbreviation	Name in Full
AG	ATCO Gas
AMR	Automatic Meter Reading
AP	ATCO Pipelines
DFSS	Daily Flow Settlement System
FSU	Firm Service Utility
GDT	Gas Distribution Tariff
LBDA	Load Balancing Deferral Account
LBRR	Load Balancing Rate Rider
MST	Mountain Standard Time
NGTL	NOVA Gas Transmission Ltd.

APPENDIX 5 – BOARD PROCESS LETTER OF DECEMBER 22, 2005 OUTLINING MODULES

APPENDIX 5.doc

(consists of 7 pages)

Alberta Energy and Utilities Board

Calgary Office 640 – 5 Avenue SW Calgary, Alberta Canada T2P 3G4 Tel 403 297-8311 Fax 403 297-7336

Electronic Notification

December 22, 2005

To: Interested Parties

ATCO GAS
RETAILER SERVICE AND GAS UTILITIES ACT (GUA) COMPLIANCE
PHASE 2 PART B PROCESS
APPLICATION NO. 1411635

In a letter dated November 23, 2005, ATCO Gas proposed an alternate approach to advance the Retailer Service application as a result of a failure by parties to reach consensus during the Module 1, Customer Account Balancing collaborative discussions. In particular, parties could not agree on whether the time period for customer account balancing would most appropriately be on a daily or monthly basis. On November 30, 2005, the Board issued a letter requesting comments from interested parties with respect to the alternative process suggested by ATCO Gas. Comments were received from Nexen Marketing (Nexen); the Utilities Consumer Advocate, the Alberta Urban Municipalities Association, the City of Edmonton and The City of Calgary, collectively referred to as the UCA/AUMA/EDM/Calgary; the Consumers' Coalition of Alberta (CCA); Direct Energy Regulated Services (DERS) and also Direct Energy Partnership (DEP). ATCO Gas responded to the comments from interested parties in a letter dated December 13, 2005.

Background

In its letter of November 23, 2005, ATCO Gas proposed an alternate litigated approach to advance the Retailer Service application. Based upon comments from parties expressing uncertainty with respect to the unproven reliability of the load forecasting information expected from the Daily Forecasting and Settlement System (DFSS), ATCO Gas proposed that it would be most effective to adjust the content of some of the modules outlined in the Board's letter of October 3, 2005. Most notably, the ATCO Gas submission recommended removing some elements related to the consideration of the DFSS system from Module 3 and importing them into Module 1. ATCO Gas considered the DFSS system to be required regardless of the period of time over which customer account balancing is conducted because it is required for final settlement of accounts. With a Module 1 approval, including approval of the time period for customer account balancing as well as approval of DFSS costs, ATCO Gas indicated it would then develop and implement the DFSS system. ATCO Gas considered that this would facilitate subsequent testing of the forecasting accuracy, and with that documentation in place, parties might more effectively collaborate to make any beneficial adjustments to finalize suitable imbalance tolerances in Module 3.

Views of the Board

The Board's letter of October 3, 2005 established a process to advance the Retailer Service application utilizing modules, the majority of which were to be subject to consultation and negotiation among interested parties. The Board determined that Module 2, dealing with load balancing would need to be fully litigated due to polarization of views among parties on this issue. The Board was hopeful that this process would facilitate successful collaboration among parties, with only certain specific issues being referred to the Board for adjudication where agreement among the parties could not otherwise be attained.

The Board understands from the ATCO Gas submission that its intention is now to litigate all aspects of the Module 1 process without reconvening the collaborative process for any Module 1 issues. Further, the proposed process incorporates additional approvals being sought in Module 1 with respect to the costs associated with DFSS system development.

The Board anticipated in its October 3, 2005 letter that a collaborative process would result in a more expeditious and informal way of resolving Module 1 issues. Instead, the Board observes that the current proposal from ATCO Gas seeks to litigate the entirety of Module 1 with one of the outcomes being a Board determination with respect to customer account balancing processes. This determination would then be utilized in the Module 2 litigated process with respect to load balancing, without the opportunity for parties to undertake further collaborative discussion. The Board is concerned with the inefficiency, cost and delay that two consecutive litigated processes may create. Also the Board notes that the intent of Module 1 included establishing an understanding of the inter-relationships between customer account balancing and the issues of load balancing that are to be handled in Module 2. It is difficult to see how this could be done in a litigated Module 1 without drawing in elements from Module 2 into the process. Given the above, the Board considers that it is appropriate to merge Module 1 and Module 2 into one consolidated litigated process. The Board anticipates this will allow all parties to make a complete case with respect to their views on any inter-relationships between customer account balancing and load balancing and should permit the Board to make a comprehensive decision on all Module 1 and Module 2 matters. The Board will permit the inclusion of the issues related to scope and cost of the DFSS system into the litigated Module 1/Module 2 process. ATCO Gas should be prepared to address the anticipated level of accuracy it forecasts with respect to its DFSS proposal. The Board anticipates that ATCO Gas should provide, at a minimum, a qualitative assessment of the DFSS accuracy expected and a comprehensive description of how the system would function, including how it would interface with the operating needs of retailers.

Parties are aware that with respect to litigated proceedings, the Board encourages consultation in order to improve understanding of the issues in order to improve efficiency of the subsequent evidentiary and hearing processes. Accordingly, the Board would encourage ATCO Gas to continue to work with parties on the complex matters to be determined in this proceeding in an effort to better address the issues to be determined, including: the operational needs of retailers, the tolerance ranges and penalties that may be acceptable to parties.

In reviewing the ATCO Gas draft outline for its Module 1 evidence, the Board observes that ATCO Gas already appears to be working toward providing much of this information. ATCO

Gas has indicated that it proposes to deal with DFSS in its evidence and will provide an updated business case which will include its perspectives on accuracy.

Accordingly, the Board has re-established a timetable to deal with the consolidated process for Modules 1 and 2 as follows.

ATCO Gas Evidence	February 1, 2006
Information Requests to ATCO Gas	February 21, 2006
Information Responses from ATCO Gas	March 14, 2006
Interested Parties Evidence and Submission of Intervener Budgets	April 4, 2006
Information Requests to Interested Parties and Submission of Budget from ATCO Gas	April 25, 2006
Information Responses from Interested Parties	May 16, 2006
Rebuttal Evidence (if any)	May 30, 2006
Oral hearing	June 6-9, 2006
Argument	June 26, 2006
Reply Argument	July10, 2006

As noted in its letter of October 3, 2005, the Board was encouraged by ATCO Gas's objective of working in a consultative manner with interested parties. This was particularly important with respect to operational matters that parties will be required to implement and utilize in years to come. The Board is hopeful that ATCO Gas will continue to work with parties in advancing understanding of the matters to be addressed within the upcoming litigated process, for example, the retailer interface with the DFSS system.

Parties will note from the foregoing ATCO Gas schedule, that the Board will require the submission of budgets in keeping with the objective of encouraging process efficiencies in the overall best interest of ratepayers.

In light of the above directions, and after considering the comments from interested parties, the Board has revised the contents of the modules as attached in Appendix A. The Board will review the process for the remaining modules after dealing with Modules 1 and 2.

Please contact the undersigned at (403) 297-3266 with any questions.

Yours truly,

(sent by email)

Brian Shand
Utilities Branch

Attachment

APPENDIX A
ATCO GAS RETAILER SERVICE PHASE 2 PART B MODULES
REVISED DECEMBER 22, 2005

Module 1 – Customer Account Balancing Fundamentals
To be litigated in conjunction with Module 2

Intent

- Establish rules and tolerances for ATCO Gas customers to maintain their accounts and the mechanisms to deal with out-of-tolerance retailer, self-retailer or DSP accounts
- Establish an understanding of the inter-relationships between customer account balancing and load balancing
- Establish conceptual methodologies for the treatment of imbalance quantities and their associated conceptual settlement mechanisms
- Approve a time period for customer account balancing (daily, monthly or otherwise)
- Approve the scope and costs associated with developing a Daily Forecasting and Settlement System (DFSS)

Identify Alternative Approaches

- Daily
- Monthly
- Other

Assess Alternatives

- Incremental capital and operating costs for each alternative
- Benefits, concerns and implementation ease for each alternative
- Assess the anticipated quality of the consumption forecast and backcast data associated with alternative balancing periods
- Estimate the resultant load balancing quantities associated with alternative account balancing periods and tolerances
- Determine administration of all components to be included in the account balance
    - Unaccounted for gas
    - Other?

Tolerance

- Review expected accuracy of available data (as expected from DFSS)
- Identify range of potential imbalance window tolerances
- Review the merits of broader versus narrower tolerances
- Consider whether oversupply and undersupply should be treated symmetrically
- Review feasibility of alternative mechanisms for monitoring and enforcement
- Consider perspectives of a phased approach to facilitate testing

Financial Settlement of Imbalances

- Consider financial settlement options for customer accounts outside tolerance
- Assess any options of source of gas for settling accounts outside tolerance
    - Load balancing deferral account
    - Other?
- Review the merits of alternative financial settlement options
- Determine appropriate tolerance levels and settlement pricing concepts

DFSS

- Review DFSS business case and functionality
- Review system design as it pertains to retailer interface
- Review qualitative assessment of the DFSS accuracy expected
- Establish an appropriate customer account balancing period utilizing the forecast DFSS accuracy in conjunction with consideration of any other potential alternatives
- Review DFSS costs

Module 2 – Load Balancing
To be litigated in conjunction with Module 1

Intent

- Establish processes for ATCO Gas to maintain the supply of gas in its system within appropriate pressures including the processes of maintaining its upstream accounts on ATCO Pipelines within tolerance with a view toward enabling reliable supply

Estimated Quantity of Gas

- Establish expected load balancing threshold quantities associated with the criteria arising from the customer account balancing process

Alternatives

- Identify mechanisms available to load balance the system for the expected volumes
    - Same day gas
    - Storage
        - Commercial storage
        - Carbon storage on ATCO Gas South
        - Salt caverns on ATCO Gas North
    - Yesterday (YD) instrument
        - On NGTL
        - On ATCO
    - Other

- Proceeding will explore costs, merits, reliability, liquidity and shortcomings associated with each alternative. This examination should include the relative costs/benefits, short-term and long-term reliability, associated risks and contingency requirements of the alternatives in all typical and reasonably foreseeable operating scenarios.

- Proceeding will explore any probable gas price implications associated with each alternative at least from a qualitative perspective
- Proceeding will explore the merits of implementing a single alternative versus a combination of alternatives.

Purchase/Sale Mechanics

- Internal or external personnel responsible and associated costs
- Load balancing deferral account
    - Proposed recovery/disposition administration
        - Rate rider
        - Other options?
- Carrying cost perspectives

Implementation/Testing

- Procedures and timelines
- Need for and duration of any transition period
    - Perspectives of DERS retaining its current role as the load balancing agent for the distribution system during a transition period

Module 3 – Load Settlement Information Systems

Intent

- Develop and implement information systems to forecast consumption and establish final end-use customer consumption based upon best-available information using a daily or otherwise established basis
- Aggregate the end-use customer data into accounts for respective retailers, self-retailers and the DSP so they can monitor and nominate gas supplies into their accounts
- Establish details of customer account balancing implementation procedures

Daily Forecasting and Settlement System (DFSS)

- Review accuracy of DFSS forecast/backcast from available data
- Finalize or fine tune the model parameters respecting the imbalance window and any penalty provision subsequent to testing and verification of the forecast DFSS accuracy
- Finalize requirements for forecasting, backcasting and settling daily (or otherwise established) consumption for end-use customers
- Finalize processes and schedules to develop consumption forecasting mechanisms
- Finalize processes and schedules to aggregate end-use consumption data into accounts
- Finalize processes and schedules to transfer aggregated information to the proposed GASTIS system

Gas Transportation Information System (GASTIS)

- Establish requirements for providing aggregated daily (or otherwise established) consumption by account for each retailer, self-retailer and DSP to facilitate account balancing
- Establish processes and schedules for interface with DFSS

- Establish requirements for interface with ATCO Pipelines systems
- Establish reporting requirements for receipts, deliveries and imbalance management for each account
- Establish processes for on-line customer access to account data
- Establish processes for nominations to/from each account
- Establish processes for purchase/sale transactions for out of tolerance imbalances

Testing and Implementation

- Establish testing procedures and the implementation schedule, including:
  - establishing measures of success and/or other milestones to be used throughout testing, transition and implementation
  - identifying the procedures and systems to be tested and the period of testing
  - determining the requirement for a transition period, procedures to be used during transition and the duration of transition
  - any other matter(s) related to testing and implementing account processes

Module 4 – Procedural Documentation

Intent

- Document all procedures

Assess alternatives for collecting and documenting retail procedures to ensure continuity and prevent any impediments to competition

- ATCO Customer Choice Guide
- Generic Gas Settlement System Code
- Other alternatives or combinations

Finalize Terms and Conditions

- Finalize the Distribution Access Service Terms and Conditions Article 13B – Retailer/DSP Service
- Assess the Distribution Access Service T&Cs (procedures between the Distribution Company and Retailers/DSP) and the Distribution Service Connections T&Cs (procedures between the Distribution Company and customers) with a view toward final approval *[if not completed in ATCO Gas 2003/2004 GRA Phase II Application 1416346]*

Module 5 – Phase 2 Part B Application

Intent

- Outcomes of the Load Settlement Information Systems Module and the Procedural Documentation Module shall be submitted together in a single application for Board approval. The application should clearly identify any unresolved issues and seek final approval of all procedures and documents.