

***THE CONSUMERS' ASSOCIATION OF CANADA,
SASKATCHEWAN BRANCH***

*An Assessment of the
Application from
SaskEnergy to
Increase the Delivery
Rates of Natural Gas
in Saskatchewan*

A SUBMISSION TO THE SASKATCHEWAN RATE REVIEW PANEL

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1. Introduction

SaskEnergy's 2007 Annual Report states on page 3 that "SaskEnergy's main business is the natural gas distribution utility.....[and SaskEnergy]...has the exclusive legislated franchise to distribute natural gas within the Province of Saskatchewan".

The economic significance of this statement is that SaskEnergy is the sole distributor of natural gas and has a monopoly on the distribution of natural gas within Saskatchewan. Economic theory recognizes there are circumstances under which efficiency considerations justify the existence of a single supplier. The efficient distribution of natural gas within Saskatchewan can be justified with reference to these considerations.

It is in the public interest that the conduct and performance of monopolies established by law shall be subject to regular external reviews. SaskEnergy has approximately 336,000 customers in Saskatchewan. Every customer must accept that SaskEnergy is the only authorized agent to deliver natural gas within Saskatchewan. The customers of SaskEnergy have no alternative sources of delivery services. They are captive customers of SaskEnergy and are entitled to demand:

- assurances that SaskEnergy is "an efficient monopolistic distributor"
- assurances that SaskEnergy's distribution rates are fair and equitable within and across the customer rate classes
- opportunities from time to time to engage in an exchange of views and opinions about the extent to which the public interest of the monopoly position granted to SaskEnergy is or is not in conflict with the private interests of its customers.

A rate review hearing is an occasion to confirm that SaskEnergy is efficient, that its distribution rates are fair and equitable and that all of us can exchange views about the public and private interests associated with a publicly owned gas utility monopoly.

SaskEnergy has submitted a request for permission to adjust its delivery rates in order to increase its annual revenues by \$9.2 million beginning November 1, 2008. The request for increased delivery rates will affect all of its customers except those assigned to the rate class called Small Industrial.

The Application to increase the delivery rates is now before the Saskatchewan Rate Review Panel. It has been asked "to conduct a review of SaskEnergy's request for an increase in its delivery rates...[and] ... shall provide an opinion of the fairness and reasonableness of SaskEnergy's proposed rate changes, considering the interests of the customer, the Crown corporation, and the public." (Minister's Order).

The Consumers' Association of Canada, Saskatchewan Branch, believes the issues involved in this rate application are important. Furthermore, we believe that the assessment of "reasonableness" requires an analysis of the factors determining SaskEnergy's Revenue Requirements and the assessment of "fairness" requires an analysis of the impact of the proposed delivery rates on the customers in each rate class.

2. The Consumers' Association of Canada, Saskatchewan Branch, and the Delivery Rate Application

The Consumers' Association of Canada, Saskatchewan Branch, concluded that the Delivery Rate Application requires a careful analysis of SaskEnergy's natural gas delivery practices and comparison of those practices with the practices of other gas utility companies in Canada. It was also clear to us that an analysis and review of the issues identified in the Minister's Order would require the Consumers' Association of Canada, Saskatchewan Branch to obtain the services of a person with experience and expertise in the field of the public utility gas industry in Canada.

We have been successful in retaining Dr. Roger Higgin to assist us. He is a consultant with ECS Consulting Services of Toronto and he has many years of experience with regulation of the gas utility industry in Canada. His credentials are attached as Appendix B to this submission.

Dr. Higgin reviewed the documentation submitted by SaskEnergy in support of its rate application. He is of the opinion that SaskEnergy had supplied insufficient information to permit an assessment about "the reasonableness of the proposed changes to the rates". Accordingly, he prepared a list of questions and asked the Consumers' Association, Saskatchewan Branch, to submit the questions to Rate Review Panel at the hearing held on August 13. We did that.

We were informed by the Panel on August 13 that the questions would be forwarded to SaskEnergy with a request that it respond. We received the response to our questions on September 11. A copy of the questions and responses is attached as Appendix A to this submission. The Panel had previously stipulated that September 15 would be the deadline for submissions. We appreciate that the Review Panel agreed to accept our submission although we could not complete it by September 15.

3. SaskEnergy's Delivery Rate Application

SaskEnergy submitted two rate applications on July 16, 2008 to the Saskatchewan Rate Review Panel, a commodity rate application and a delivery rate application.

The commodity rate application requested permission for SaskEnergy to increase the price it can charge its customers in Saskatchewan for natural gas. At the time the application was filed there were two suppliers of natural gas in Saskatchewan, SaskEnergy and CEG Energy Options Inc. By mid-August CEG Energy Options Inc. ceased operations in Saskatchewan and is now in receivership. At this time, SaskEnergy is also the sole supplier of natural gas within Saskatchewan.

The review of the commodity rate application has been completed. During the proceedings of the commodity rate request SaskEnergy advised the participants in that review and the members of the Rate Review Panel that the sale of natural gas by SaskEnergy to its customers in Saskatchewan is mandated by a "revenue neutral pricing policy". In accordance with that mandate, the price of natural gas will reflect SaskEnergy's costs of purchasing the gas without any mark-ups to generate profits from the sale. In other words, the sale of natural gas shall not contribute to the annual net earnings of SaskEnergy.

The consequence of this pricing policy is that “earnings” of SaskEnergy will depend on its other corporate activities including the distribution of natural gas in Saskatchewan. It is clear that revenues from its distribution activities and the other activities not related to “commodity sales” are critical to SaskEnergy in order to satisfy its net earnings targets and Rate of Return on Equity (ROE) target.

SaskEnergy’s revenue needs are the driving forces behind the request for an increase in the delivery rates. How does one determine whether the request is justified and who among its many customers should pay how much more for the delivery of gas?

4. SaskEnergy’s Rate Requests and the Review Process

We began our assessment of the rate application by reviewing the Minister of Crown Corporations’ Order to the Saskatchewan Rate Review Panel of July 16, 2008 specifying the terms of reference for its review of the SaskEnergy’s Application for Delivery Rates. We noted specifically Schedule B in that Order. It contained a list of “given parameters” that normally would not be treated as parameters before a rate review panel to assess efficiency and equity issues of a public utility corporation.

We accept the Minister’s authority to define the terms of reference for the Rate Review Panel. We note that a possible consequence of Schedule B may be to limit the review process of the Review Panel of the SaskEnergy Delivery Rate Application and not allow the Rate Review Panel to assess the reasonableness and fairness of the rate requests fully and completely.

The Consumers’ Association of Canada, Saskatchewan Branch, does not believe that it or any of SaskEnergy’s customers are precluded from identifying and raising their concerns about the current application in a public forum without reference to the possible restrictions that may flow from adherence to section (C) of Schedule B of APPENDIX A.

We will note, however, in our submission when and where our observations, conclusions, and recommendations may or may not be in accordance with section C.

We recognize also that the Review Panel is bound by its terms of reference including sections A, B, and C of Schedule B and cannot act on recommendations contrary to its terms of reference.

We reviewed the 2007 Annual Report of the Crown Investments Corporation of Saskatchewan, the Crown holding company which controls SaskEnergy and other Crown corporations in Saskatchewan. That review was undertaken to establish to what extent CIC can give directions to the Board of Directors of SaskEnergy with respect to expected rates of return for SaskEnergy and the dividend rate policy that SaskEnergy should follow.

Finally we reviewed the 2007 Annual Report of SaskEnergy and the documentation submitted by SaskEnergy in support of its application. We also attended a public hearing on August 13 to listen to SaskEnergy’s presentation of its application to the Rate Review Panel. The Consumers’ Association of Canada, Saskatchewan Branch, made a presentation at that hearing.

5. The Structure of CAC/SK's Submission

In the next section we examine SaskEnergy's assessment of the impact of the rate request on the different rate classes and the customers assigned to those rate classes. In section 7 we present CAC/SK analysis of the rate impact on and within the Residential rate class.

We noted earlier the importance attached to SaskEnergy's revenue requirements in its application and in the documents it filed with the Rate Review Panel.

Section 8 examines the factors driving the rate request in order to evaluate the reasonableness of the rate request. That is followed by section 9 which examines the factors used by SaskEnergy to determine how the total amount of the rate request should be allocated among its customers in order to assess the fairness of the rate request.

In section 10 we review the Minister's Order and the terms of reference of the Panel, their impact on the information made available in the context of assessing the proposed rate requests from SaskEnergy. Section 10 is a record of our conclusions and recommendations to the Rate Review Panel.

6. SaskEnergy's Impact Assessment of its Rate Requests

SaskEnergy is seeking a rate adjustment that will generate an additional \$9.2 million annually in delivery revenue (Page 21, Application). On Page 2, however, it is requesting an increase of \$5.4 million for the period Nov. 1, 2008 to May 31, 2009. The shorter time interval represents the last 7 months of the "Test Period" which began on June 1, 2008 and ends on May 31, 2009. SaskEnergy did not explain why its rate request was based on a June to May year.

We assume the proposed rate adjustment will remain in force past May 31 of next year and for that reason our assessment of the current rate proposal is based on a proposal to increase SaskEnergy's annual revenues by \$9.2 million. That corresponds to \$766,666 on a monthly basis.

We note there is an unintended consequence of the proposed rate adjustment. SaskEnergy is required to collect a "municipal franchise fee" based on each customer's total monthly bill and transfer these monies directly to the municipalities where the customers reside. The fee is 5% plus GST and will come on top of the rate adjustment. We estimate the increase in the fee (with GST) is approximately \$500,000 annually or \$ 41,700 monthly.

SaskEnergy's presentation of the impact of the proposed rate increase suggests it is very modest for all affected rate classes. The description on Page 2 states that "customers will experience an average increase of 1.7% on the total bill, including the commodity portion". That description is somewhat misleading and useless because it is a measure of the average of the average impact of the requested delivery rate increase for each rate class measured relative to the combined increase of the commodity and delivery requests.

In the opinion of the Consumers' Association of Canada, Saskatchewan Branch, there are not many, if any, customers of SaskEnergy, whose delivery rate will be adjusted by

that measure! Furthermore, it is an inappropriate benchmark for assessing the reasonableness of the delivery rate request.

We believe a more accurate impact assessment is found in the Table at the bottom of page 22 of the Application. It shows that the average increase for Residential and Farm class customers will be 6.8% and with lesser increases for General Service II and III customers.

The Consumers' Association of Canada, Saskatchewan Branch, is always concerned when a rate application measures its impact in terms of "the average customer" in each rate class or in terms of "the average of the rate class". Worse yet is when the rate adjustment is presented as "the average of the average of each rate class" (Application page 2).

We know that average figures are sensitive to the presence of extremely high or low values in the frequency distribution of the sample population. We believe that the impact of the rate adjustment on the median in each rate class should be presented together with the average values. This would have permitted us to observe and take note of the differences between the values of each statistical measure. We regret that we did not ask SaskEnergy to provide that information when we submitted our questions in August.

7. CAC/SK's Assessment of the Impact of the Proposed Rate Request

We decided to attempt an impact assessment of the proposed rate adjustments on the customers assigned to the Residential rate class. The decision to focus on that rate class was based on some additional sources of information about that rate class. SaskEnergy provided additional information on Residential customers in the application document which could be combined with information about Residential customers in the SaskEnergy 2007 Annual Report. The combination of these sources allowed us to get a better measure of the Residential customers than any other SaskEnergy customer group.

We have a record of the total volume of gas distributed (petajoules) to each rate class during 2007 (2007 Annual Report, Page 9). We also know the Residential Average Annual Usage(cubic metres) during 2007 (2007 Annual Report, Page 10). By applying the correct conversion formulae from usage measured in m³ to total Residential distribution measured in petajoules we estimated that SaskEnergy had approximately 261,000 customers assigned to its Residential rate class in 2007. We do not have any information that will allow us to estimate the number of customers assigned to the other rate classes.

We noted earlier that the total monthly rate revenue increase would be \$766,666. Based on our estimate of the number of Residential class customers it appears that the total monthly rate adjustment for that class will be approximately \$522,000 (261,000 customers times \$2 which is the proposed rate increase per customer). That total is equal to 68% of the total monthly rate increase.

The 2007 Annual Report also allows us to measure the total distribution of gas by each rate class. We estimated that the Residential rate class accounts for approximately 23% of the total distribution of gas within Saskatchewan by volume in 2007.

We also wanted to assess the impact of the proposed rate requests on the different customer groups **within** the Residential rate class. That analysis requires a brief description of the

current Residential rate structure and information about the actual volume of distribution by different customer groups within the Residential rate class.

It is however possible to show the impact of the proposed rate adjustment by constructing tables of customer classes in terms of specific volumes of distribution to determine the delivery fees for each customer group within the Residential rate class.

Graph A below depicts the current rate structure. It consists of a **fixed fee** of \$ 12.50 per month (blue line) and a **variable fee** of \$.071 per cubic metre of gas delivered (green line). The **total fee** is a combination of the fixed and variable fees (red line). The origin of the total fee line is entered at 12.50 on the vertical axis.

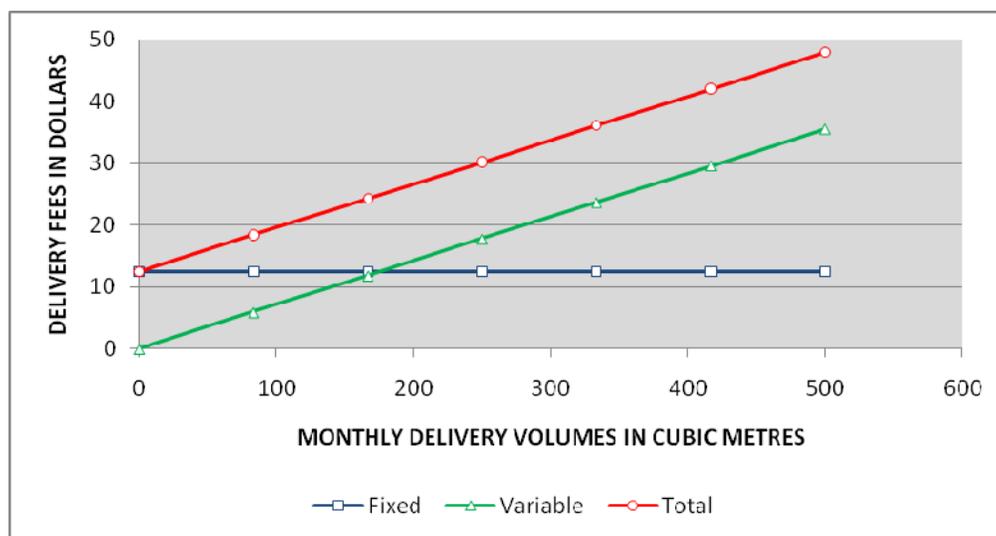
It is our understanding the rate structure depicted in Graph A is common in the gas utility industry. Similar graphs can be constructed for every rate class and used to provide an easy visual comparison of the difference between the fixed, variable, and total fees applicable to each rate class by delivery volumes as well as the differences between rate classes.

These graphs can also be used to show the consequences of a change in the rates. A proposal to increase rates can be accomplished in three ways; (i) by raising the fixed rate from the current level, (ii) by increasing the variable rate in which case the slope of the line measuring the variable rate will become steeper or (iii) by changing both rates. The current proposal from SaskEnergy involves an increase in the fixed rates only.

An increase in the fixed fee only can be measured by moving the origins of the fixed fee line and total fee line up by the proposed rate increase.

GRAPH "A"

THE DELIVERY RATE STRUCTURE FOR THE RESIDENTIAL CLASS CUSTOMERS BY MONTHLY DELIVERY VOLUMES (M³)



Source: Table 1 below

To complete our impact assessment within the Residential class we need to determine the monthly volume of gas delivered to different customers. We will use the consumption of gas as a proxy for the volume of gas SaskEnergy will deliver to its Residential customers. SaskEnergy stipulates that a residential customer will use 2,895 m³ of gas annually (Page 3 of the Application). We assume that customer represents the *average* Residential customer described by SaskEnergy who will experience a rate delivery adjustment of 6.8% noted above.

What happens to the rate adjustment for consumers who consume more or less than the average customer identified by SaskEnergy?

We can establish that by creating seven different customer groups, “A” to “G”, who are classified by their assumed annual consumption of gas ranging from 0 to 6000 m³. For each group we converted that annual consumption to a monthly amount of gas that SaskEnergy would need to deliver. We then applied the current and proposed rate delivery formulas to the assumed volumes of delivery and finally measured the changes in the total delivery fees in terms of the percentage from the current delivery fee to the proposed delivery fee. Our calculations are presented in the Table 1 below.

TABLE 1

AN ASSESSMENT OF THE PROPOSED RATE INCREASE FOR RESIDENTIAL CUSTOMERS “A” TO “G” BY VOLUME OF GAS DELIVERED EACH MONTH

Gas delivered (m³)	<u>"A"</u>	<u>"B"</u>	<u>"C"</u>	<u>"D"</u>	<u>"E"</u>	<u>"F"</u>	<u>"G"</u>
Annually (m ³)	0	1,000	2,000	3,000	4,000	5,000	6,000
Monthly(m³)	0	83.33	166.66	250.00	333.33	416.66	500.00
Monthly Delivery Fees							
Current rates	\$12.50	\$18.42	\$24.33	\$30.25	\$36.17	\$42.08	\$48.00
Proposed rates	\$14.50	\$20.42	\$26.33	\$32.25	\$38.17	\$44.08	\$50.00
Delivery Rate Increase	16.00%	10.86%	8.22%	6.61%	5.53%	4.75%	4.17%

We note the skewed distribution of the rate impact within the Residential rate class as measured by percentage rate increase by volume of consumption. This is to be expected because the proposed rate adjustment is limited to an adjustment of the fixed fee only. The consequence of that decision by SaskEnergy is to shift the burden of the rate adjustment to the customers within the Residential rate class who demand the lesser amounts of gas.

No information is available about the annual consumption of the average customer in the other rate classes. Without any bench mark information about gas consumption by the average customer in the Farm rate class and the number of customers assigned to that rate class, we concluded it would not be possible to assess the impact of the proposed rate adjustment within the Farm rate class. That is also true for an analysis of rate impact on the customers in the General Service II and III rate classes.

We are however satisfied that the same skewed distribution will be observed within every rate class. We cannot measure the magnitudes.

8. CAC/SK's Assessment of the "Reasonableness" of the Proposed Rate Request

A request for a rate increase based on the need to meet revenue requirements always reflects a situation where current corporate revenues are insufficient. The causes of the insufficiencies are normally attributed to increasing costs, declining sales or a combination of both. The documentation submitted by SaskEnergy notes that both factors have contributed to the current rate application.

We begin our analysis by reviewing how SaskEnergy establishes its revenue needs for the delivery services followed by a detailed analysis of the revenues of the separate components involved with the delivery services.

Determination of the 2008-2009 Revenue Requirement

The Revenue Requirement is the total revenue SaskEnergy requires to recover all costs of providing delivery service, **including an appropriate target of net earnings**. (Emphasis added) On this basis, SaskEnergy has determined it requires additional revenues of \$9.2 million annually effective November 1, 2008.

SaskEnergy has identified 6 components of its "Revenue Requirement". Some represent functional activities of the delivery operations; others reflect the financial requirements and activities of delivery operations. The following components are listed:

- Delivery Transportation and Storage Expense
- Operating and Maintenance Expense
- Depreciation Expense
- Tax Expense
- Interest Expense
- Net Earnings

The reported cost of each functional activity is the sum of the fixed and variable costs of that activity. It is clear that a major portion of SaskEnergy's operational costs flows from the maintenance and support of the fixed capital costs of the pipe line system, compressor stations, etc.

Gas distribution is a capital intensive industry and for that reason, the capital structure of SaskEnergy, debt to equity ratios, rates of depreciation, interest on debt, target rates of return, and rates of return on equity (ROE) become critical issues in assessing the "reasonableness of the rate request".

The Application document reviews and discusses these components on pages 6 to 18. We begin our analysis of the components by reproducing Schedule 1.1 from the Application in the column called Test Year in Table 2 below. The column called 2007 Actual is based on entries from SaskEnergy's response to our Question 1.2. (Appendix A, page xx of this Submission). The last column called Change records our estimates of the differences for each component between the Test Period and the 2007 Actual.

Footnote 3 of Table 2 is important. It notes the discrepancies between the 2007 Actual figures reported in the numeric column two and the 2007 Actual figures presented in the Application document. We have identified discrepancies by a single * where they occur. A double star ** indicates the absence of a corresponding schedule and figure in the Application document.

SaskEnergy's response to our Question 1.2 also advised us that the delivery cost of service did not change between 1997 and 2007 and for that reason "no delivery rate changes were implemented". No explanations were offered. We do not know if the costs of delivery remained unchanged during that time period or if the revenues collected during that time period were sufficient to cover the actual cost increases.

TABLE 2

Sask Energy's Revenue Requirement (\$ million)

Component	Test Period¹	2007 Actual^{2,3}	Change
Transportation and Storage Expense	38,888	37,294*	+1,594
Operating & Maintenance Expense	84,055	75,003*	+9,052
Depreciation Expense	25,989	26,705*	- .716
Tax Expense	3,599	3,227*	+ .322
Interest Expense	13,387	17,218**	- 3,837
Net Earnings	16,599	16,322**	+ .277
Total Delivery Revenue Requirement	182,517	175,789**	+6,728
Other Revenue	(14,539)	(14,355)*	+ .184
Net Delivery Revenue Requirement	167,978	161,414**	+6,564

The Net Delivery Revenue Requirement is derived from two sources; (i) revenue from the delivery of gas to customers based on delivery rates (Total Delivery Revenue Requirement) and (ii) revenue from other business activities (Other Revenue).

Transportation and Storage Expense

Transportation and Storage costs are shown in Schedule 1.2 of the Application. These costs are forecast at \$38.9 million for the Test Period. For the November 2007 to October 2008 gas year (which overlaps with part of the Test Year), SaskEnergy has decreased its contracted transportation demand levels to reflect lower transportation requirements necessary to meet peak day requirements due to declining use per customer.

¹ The Test Period covers the period June 1, 2008-May 31, 2009. The sources for this column are SaskEnergy's Delivery Rate Application, page 12, Schedule 1.1 and SaskEnergy's response to Question 1.2, Appendix A, page 28 of this Submission.

² SaskEnergy's response to Question 1.2, Appendix A, page 28 of this Submission.

³ It should be noted that the numbers shown in this column do not correspond with the 2007 Actual numbers entered in evidence by SaskEnergy's Delivery Rate Application. See Schedules 1.2(Delivery Transp. Stor. Exp.), 1.3(O&M Exp.), 1.4(a) (Deprec.Exp.), 1.5(Tax Exp.), and 1.6(Other Revenue). The Application did not provide any information about Interest Expense and Net Earnings. The Application did not provide schedules showing 2007 Actual figures for the Total and Net Delivery Requirements .

The Evidence in Schedule 1.2 shows a decrease in transportation volumes from 557,063 GJ (2007) to 543,351 GJ (2008/09), but no corresponding decrease in either Storage Volumes or Contract demand for the Test Period.

8.1 *SaskEnergy should be asked to explain why peak day requirements are not decreased proportionately with total volumes for residential and small commercial rate classes.*

Operating and Maintenance Expense

Total operating and maintenance (O&M) costs are shown in Schedule 1.3 of the Application and are forecast at \$84.1 million for the test period. O&M expenses are primarily labour-related costs including employee benefit and pension costs. These costs represent approximately \$67 million or 80% of the expenses forecast for the Test Period.

SaskEnergy offers three main causes behind the increase in O&M:

- SaskEnergy is in the process of increasing its full time equivalent positions (FTE's) by an additional 40 FTE's (see Figure 1). These additional FTE's will ensure that there is adequate staff to meet customer needs and the corporation is ready to handle the transition from its aging workforce with a well defined succession plan.
- A three-year Collective Bargaining agreement between SaskEnergy and the Communications, Energy and Paperworkers Union (CEP) Local 649 that took effect February 1, 2007. This agreement outlined annual wage increases of 4% effective February 01 in each of the years 2007 to 2009. This agreement follows the government mandate set for all collective bargaining negotiations in the Crown sector.
- Merit and economic increases for out-of-scope employees are guided by CIC policies that are applicable to all crown sector management employees.

Other Operating costs forecast to increase during the 2008/09 Test Period are property costs, health and safety related costs and sustenance and vehicle costs.

8.2 *SaskEnergy's Second Quarter 2008 Financial Report records increased Net Income in the period to June 30, 2008, despite the increase in labour costs. The factors driving this result should be explained by SaskEnergy.*

8.3 *SaskEnergy Distribution has not related the increase in FTEs and the timing of new hires to the 2008/09 revenue requirement. Are all 40 new hires to be on payroll in 2008/09 or over a longer period? What retirements will there be and what is the net increase in payroll costs?*

8.4 *SaskEnergy Distribution should be required to compare its performance relative to other Canadian Utilities in terms of the following standard industry metrics:*

- *O&M per Customer*
- *O&M per Km of Distribution Pipe*
- *O&M per M³ of gas distributed*

Depreciation Expense

Depreciation expense is summarized in Schedule 1.4. Depreciation expense for the Test Period is forecast to be \$26.0 million. In 2007, SaskEnergy engaged a third party to undertake a depreciation study of SaskEnergy's fixed assets. The findings of this study were approved by SaskEnergy's Board of Directors and have been incorporated into this application.

There is no information provided on the Fixed assets/rate base (Net fixed Assets plus an allowance for Working Capital) of SaskEnergy. No other explanation for the changes in depreciation rates and 2008/09 expense has been provided. The changes are from \$25.538 million in 2007 Actual to \$25.989 million for the Test Period.

8.5 *The new Depreciation Study has not been filed although this appears to be the main driver for numerous changes to depreciation rates and the resulting increase in depreciation expense for the Test Period.*

Tax Expense

The tax expense for the Test Period is forecast at \$3.6 million.

8.6 *SaskEnergy should be asked to provide information regarding the tax base to which the tax rate of 0.6% is applied and the increase from 2,996⁴ million in 2007 to 3,599 million in the Test Period.*

Interest Expense

SaskEnergy's costs for financing the natural gas distribution infrastructure, equipment and operations are estimated at \$13.4 million for the Test Period. These expenses consist primarily of the costs associated with long term financing, which is provided by the Government of Saskatchewan. SaskEnergy also needs access to short-term borrowing and short term investing which is also transacted through the Ministry of Finance.

The response by SaskEnergy to CAC/SK Question 6.1 provides some information on Long Term Debt. However the data provided requires interpretation regarding timing of redemptions/retirements and new debt issues in order to arrive at the average amount of long term debt and the effective cost rate for the Test Period.

No specific information has been provided with regard to short term debt on the average amount and the effective cost rate of short term debt for the Test Period. The response to CAC/SK Question 6.1 indicates that bank indebtedness will incur a cost of \$2.942 million plus fees of \$214,000. We assume that this relates to the line of Credit provided by the TD Bank.

The 2007 Consolidated Financial Statement for SaskEnergy Incorporated contains the following information:

⁴ See footnote 3 on page 10. \$2,996 million is based on 2007 Actual, Application, Schedule 1.5

C. SHORT-TERM DEBT

During 2007, the Corporation borrowed funds on a short-term basis from the Province of Saskatchewan's General Revenue Fund at an average interest rate of 4.3 per cent (2006 – 4.0 per cent).

Short-term debt at December 31, 2007 consists of \$88 million (2006 – \$69 million) that was due to the Province of Saskatchewan's General Revenue Fund with an interest rate of 3.9 per cent (2006 –4.2 per cent).

8.7 No information is provided on the Cost of Capital/Capital structure for historic years and the Test Period, including short term borrowing rates for the Distribution Division. This along with the lack of detailed financial information (Distribution Division only) is a serious impediment in assessing the reasonableness of the proposed rate increase.

We note that SaskEnergy may believe it is not required to file this information on account of its interpretation of section C of the Minister's Order even though the Panel is required to consider revenue requirements and cost of service according to sections A and B.

Net Earnings

The 2008/09 Net Earnings Estimate of \$16.6 million reflects the level of earnings that will provide SaskEnergy with an appropriate return on investment as measured by the rate of return on equity. The rate of return on equity is targeted at 9.0% for the Test Period.

This level of return is considered comparable to the recent rate of return levels allowed by the various regulatory authorities providing regulatory oversight for natural gas utilities operating in other jurisdictions in Canada. It should be noted that because the implementation date is November 01, 2008 rather than June 01, 2008, SaskEnergy will forego \$3.8 million in revenue resulting in net income of \$12.8 million. This represents a return on equity of 7.0% for the period November 1, 2008 to May 31, 2009.

As noted above, no detailed financial information has been provided on the Distribution Business Capital Structure, including debt/equity and the net income policy for SaskEnergy. The response to CAC/SK Questions 3.3 and 7.1 state only that SaskEnergy has 37% equity which is not useful information without the utility rate base and details on the other capital components, especially short term debt.

However, the deemed Capital Structure of SaskEnergy for the 2008/09 Test Period can be constructed from the small amounts of information available. Based on a deemed equity of 37% and a net income of \$16.6 million based on a 9% return on that equity, the test year 2008/09 total equity is estimated to be \$149.4 million [\$16.6 multiplied by 0.09] and the deemed total capital/rate base is estimated to be \$403.8 million.

The total test year average long term debt can be estimated from the response to Question 6.1. This by our estimate is \$245.5 million at an average cost rate of 5.37% comprising about 60.8% of Capital. The balance of the Capital is Short term debt with a cost rate of about 4.0 percent based on the 2007 Consolidated Financial statement.

It should be noted that “foregoing part of the return” for the Test Period does not mean that rates will be set to recover a return of \$12.8 million on an annualized basis. The rates for subsequent periods will include a return of \$16.6 million

8.8 *The Deemed Capital Structure of SaskEnergy for the 2008/09 Test Period has not been provided in the Application.*

We note that SaskEnergy may believe it is not required to file this information on account of its interpretation of section C of the Minister’s Order even though the Panel is required to assess revenue requirements and cost of service according to sections A and B.

8.9 *We believe the Cost of Capital and in particular the Cost of Equity should be the subject of an independent consultant’s report to ensure it is appropriate for a Public Utility such as SaskEnergy Distribution.*

Other Revenue

Other Revenue is summarized in Schedule 1.6 and is forecast at \$14.5 million for the Test Period. Other Revenue components consist of Distribution Tolls, Gas Marketing Margins, Connect Fees, Late Payment Charges, Customer Financing and Miscellaneous Revenue.

The SaskEnergy response to CAC/SK Question 8.1 states:

The profitability of Gas Marketing is dependant on four key variables: (1) the inter-month volatility of gas prices, (2) the operational ability of SaskEnergy to take advantage of this price volatility, (3) the ability of SaskEnergy to purchase additional Saskatchewan gas to take advantage of these market opportunities, and (4) the ability of Gas Marketing to anticipate directional changes in gas prices. A minimum of three (3) and at times all four (4) of these variables are required in order to result in profits for Gas Marketing.

The average annual profits generated from Gas Marketing activities for the period 1998 to 2007 has been \$2.6 million per year. This \$2.6 million was adjusted higher to reflect the profits of recent years, yet tempered somewhat by the decrease in expected opportunities in the Saskatchewan gas market resulting in a forecasted profit of \$3.0 million for 2008.

The data in Schedule 1.6 show the following historic and test year revenues in \$millions:

Year	2005	2006	2007	2008	2009	Test Period
Gas Marketing Activities	7,495	6,291	6,044	3,065	3,065	3,065

The response to CAC/SK Question 8.1 mixes gross and net revenue from Gas Marketing.

The costs of Gas Marketing activities, as for other activities shown under Schedule 6 - Other Revenue are usually part of the Cost of Service and therefore the normal convention is to show gross revenue as Other Revenue.

8.10 *Sask Energy should be requested to clarify /amend the data in Schedule 1.6 to show the true gas marketing revenue either on a gross or net basis consistently for the years 2005-2009. If the data in Schedule 1.6 represent gross revenue then the original concern about under-forecasting of gas marketing revenue for 2008/09 is still valid.*

Some concluding remarks on the "reasonableness" of the proposed rate request

Table 2 on page 10 of this submission and the numbers associated with the different components are very useful in illustrating the factors driving the request for a revenue increase by SaskEnergy.

The combined increase in expenditures by 2 components, Transportation & Storage Expense and Operating & Maintenance Expense total \$10.6 million. This increase is offset by a significant decline in Interest Expense in addition to other small adjustments in other components. After all adjustments, the increase in Total Delivery Revenue Requirement is \$6.5 million. The Net Earnings component is listed at \$16.6 million and Interest Expense at \$13.4 million for the Test Period. Together they account for 17.8% of the Total Net Revenue Requirement.

We note that Interest Expense and Net Earnings are **not** included with the factors in section A of Schedule B of the Minister's Order that the Panel was instructed to consider in determining the reasonableness of the proposed rate changes and therefore not subject to review.

We recognize that many of the questions we submitted to SaskEnergy pertain to factors and issues identified in section C of Schedule B.

It is impossible to assess reasonableness of a rate request in the face of significant "information gaps".

We believe that information about the capital structure of SaskEnergy and its rates of return are critical in assessing the "reasonableness" of SaskEnergy's rate requests.

9. CAC/SK's Assessment of the "Fairness" of the Proposed Rate Request

The final steps in a rate adjustment process involve decisions about how the proposed total revenue adjustment should be allocated among the customers of SaskEnergy.

The first step in the final process is based on the principle of cost causality and attempts to allocate the costs of providing the delivery service on a functional basis to each rate class. This step is frequently called "Cost of Service". The final step is a matter of designing and/or restructuring rates to recover all costs fairly, both between the various rate classes as well as within each rate class. This step is frequently called "Rate Design".

The underlying principle of applying these steps is that by allocating the proposed revenue increase by way of rate adjustments linked to the costs of the “delivery service” to different customers, each customer will pay his/her fair share of the rate adjustments. Cross-subsidies will therefore be eliminated and fairness will be established.

Cost of Service

The Consumers’ Association of Canada, Saskatchewan Branch, was not able to find any references or any sections of the Application addressing and explaining SaskEnergy’s current Cost of Service structure.

We began our analysis of the “fairness issue” by reviewing the information presented in Schedule 2.2 of the Application and by calculating the percentage increase proposed in the **fixed fee** for each rate class. The results are as follows:

Residential rate class	16.00%
Farm rate class	18.15%
General Service II	18.65%
General Service III	47.36%
Small Industrial	No change

How does one evaluate the significance of these numbers and the differences we observe in rate increases by the rate classes?

- 9.1 *The percentage increase by rate classes differs significantly. Without more information about how the “Cost of Service” is allocated to the rate classes nobody can address the issue of “the fairness of the proposed rate request”.*
- 9.2 *This Application does not address Cost of Service and Cost Allocations and hence does not provide any information and/or schedules that allow a regulator or customer to assess and evaluate whether the proposed revenue requirement is being appropriately allocated among SaskEnergy’s rate classes and among the customers within each rate class.*

We note that SaskEnergy may believe it is not required to file this information on account of its interpretation of section C of the Minister’s Order even though the Panel is required to consider cost of service according to section B.

- 9.3 *If this information is not made available who will then judge “the fairness” of the proposed rate request and on what basis will that judgement be made?*

We do not believe that sections A, B, and C of Schedule B preclude SaskEnergy from providing this information. The sections require the Panel to consider SaskEnergy’s revenue requirement and delivery cost of service and the Panel can only do that if it possesses the relevant information. We understand that sections A, B, and C prevent the Panel from reviewing and recommending changes to the factors listed in section C.

Rate Design

The process of Rate Design is normally based on information developed from an analysis of the Cost of Service.

In the absence of information about cost structures and levels, the integrity of the Rate Design process is badly compromised. Instead of generating recommendations for proposed rates based on established and acceptable facts of costs, the recommendations will reflect reasoning to support ad hoc conclusions.

The material on Rate Design in the Application is brief. It is limited to pages 21 to 24 and half of the presentation is devoted to a description of Rate Design principles and objectives. The other half presents the proposed delivery rates.

The Ratio of Delivery Revenues to Costs and Fairness Between Rate Classes

The Application begins to review fairness between rate classes on page 21 and states that:

“...a fair rate should recover a dollar of revenue for each dollar of cost incurred in providing service...the ratio of revenue compared to cost ... would be 1.00.

SaskEnergy’s long-term objective is to have rates for each class achieve a revenue-to-cost ratio between 0.95 and 1.05. Ratios outside this range may be interpreted as an indication that some cross-subsidization exists between rate classes”.

SaskEnergy presents a graphic description of the R/C ratios for each rate class by showing the discrepancies between current delivery rates and the recommended rates (page 23). It is obvious that cost information is available for each rate class but it is provided only in terms of ratios for each rate class.

It is well understood that the value of a ratio will change when the value of the numerator and/or the denominator changes. The resulting changes in the ratio can be rapid and volatile. Hence a change in either costs or revenues will immediately trigger a change in the value of the ratio. ***An assessment of ratio changes requires full information about the underlying changes in costs and revenues.***

The revenue/cost ratio for the Small Industrial rate class is well in excess of SaskEnergy’s own criterion of an acceptable R/C ratio with a range from 0.95 to 1.05. The Application document shows that the ratio for the Small Industrial rate class was 1.22 in 2007 and is expected to decline to 1.15 in 2008(page 23). The ratios for the other rate classes are shown to be below 0.95.

This graphic presentation of the different R/C ratios appears to be the basis for justifying SaskEnergy’s differential rate class requests. It should be noted it implicitly assumes that the Costs of Delivery Service are allocated appropriately to the rate classes in conjunction with the projected changes in the revenues flowing from the recommended rate changes.

We have not been provided with any information about the allocation of the delivery costs among the rate classes and it is not possible to assess “the fairness between rate classes” without that information.

9.4 *SaskEnergy should be asked to explain how it allocates the costs of delivery services between rate classes and show the allocation of the costs between rate classes during the last five years.*

9.5 *SaskEnergy should be asked to present the record of the actual quarterly R/C ratio values for each rate class during the last five years.*

Postage Stamp Pricing Policies

We note that SaskEnergy has used the “Postage Stamp” Pricing Policy since 1982 (page 20 of the Application). We also reviewed the information presented in the Table on page 8 of the Application. That Table compares the distribution systems of the major gas utility companies in Canada in terms of customers and kilometres of distribution lines.

We estimated that SaskEnergy has on the average 5 customers per kilometre of distribution pipe, an average well below any other company in that Table. Three companies, Terasen Gas, Union Gas, and Gaz Metro average about 21 customers per kilometre of pipe, Atco has about 27, Centra has 35, and Enbridge tops all utilities with approximately 57 customers per kilometre of pipe.

These numbers can be interpreted in a different fashion by saying that SaskEnergy requires on the average 200 metres of distribution pipe to service one customer, Centra in Manitoba requires 29 metres, and Enbridge in Ontario requires 18 metres.

What are the overall cost consequences of these differences under a system of postage stamp pricing?

9.7 *In view of the number of SaskEnergy customers per kilometre of distribution pipe and the importance attached by SaskEnergy to the fixed costs of its delivery activities what are the consequences of adhering to postage stamp pricing policies for rate determination in terms of “reasonableness” and “fairness”?*

The Choice between Fixed and Variable fees

The opening paragraph on page 24 of the Application presents the following proposition:

“Proposed increases in each rate class are being recommended to the Basic Monthly Charge rather than the Delivery Charge. This approach brings SaskEnergy closer to its long-term objective of recovering 75% of the fixed customer related costs through its basic monthly charge”.

On page 21 of the Application we find the following statement:

“One challenge for the utility and its rate design is that over 98% of the cost of delivery service consists of fixed costs. Consequently, even the volumetric component of the rate – namely the

Delivery Charge – recovers fixed costs related to the contract requirements for peak day or the capacity on the distribution system. However, this is typical of the rate design faced by all major Canadian natural gas distribution utilities”.

Finally on page 22:

“However, most utilities have a Basic Monthly Charge that is too low and Delivery Charges that are too high. Customers resist accepting fixed charges, especially in months of low or no usage. **SaskEnergy has recently adopted a long-term objective to recover 75% of the fixed customer care related costs through its Basic Monthly Charge**”. (Emphasis added)

We were unaware that SaskEnergy has adopted this long-term objective and we are wondering about the consequences of this objective in terms of the “reasonableness” and “fairness” of the proposed rate requests.

There are several references to fixed costs throughout the Application. Without information on Cost Allocation we find it difficult to determine how SaskEnergy distinguishes between fixed and variable costs. With reference to the Table on page 10 of our submission we would be inclined to classify significant portions of Transportation & Storage Expenses and O & M expenses as variable costs that vary with volume. We certainly would classify the increased O & M expenses as an increase in variable costs. However, we can understand that service line, meter, and customer care costs are fixed costs. SaskEnergy’s ratio of fixed to variable costs is difficult to ascertain without more information.

9.8 The Consumers’ Association of Canada, Saskatchewan Branch, would like SaskEnergy to clarify how it distinguishes between fixed and variable costs in the components listed under its Revenue Requirements.

9.9 The Consumers’ Association of Canada, Saskatchewan Branch, believes SaskEnergy’s objective of recovering 75% of the fixed customer care related costs through its Basic Monthly Charge and the consequences of that objective require further analysis and assessments.

The Table on page 22 of the Application summarizes the recommended rate changes for each rate class. No change to the **variable fee** in any customer class is recommended. Because small customers, particularly in the Residential and Farm rate classes, are currently not paying enough to recover the cost of providing service, a larger percentage increase is recommended to the customers in these rate classes. The increased rates will all be in the form of an increase in the **fixed fees**.

Delivery rates were increased in 2007. The rate change was based on an increase in the fixed monthly charge for the Residential and Farm rate classes, the small volume customers who probably combined, represent from 75 to 80 per cent of all SaskEnergy customers.

9.10 The 6.8% increase in delivery rates for the residential class understates the total rate increase because of the deferment of a portion of the return.

Load Forecast

The load forecast is calculated as the expected use per customer for normal weather multiplied by the average number of customers (i.e. annual load = use per customer multiplied by the number of customers). The forecast is for an increase in customers over the Test Period from **329,109 to 333,579 (average 331,883 or 2774 increase) offset by a decrease in average use of about 2 GJ per residential customer [Table 4.1]**

The forecast peak day load is calculated by multiplying the estimated peak day use per customer times the number of customers (i.e. Peak Day Load = Peak day Use per Customer multiplied by the Number of Customers). This is **562,853 GJ/day** based on a 1 in 20 design criteria of 55.6 Degree Days.

The response to CAC/SK Question 11.2 shows that the forecast **overstates** the Peak Day Degree days in 4 of 5 years with a mean of 48.5 DD (Standard Deviation 4.5 DD) compared to the 2008/09 forecast of 56.0 DD. More importantly, **the variation in the forecast** is only 0.8 DD over the period 2003/04 to 2007/08. Without more information on the details of the methodology it is not possible to identify or to suggest the source of this result.

9.11 It appears from the data provided in responses 11.1 and 11.2 that the peak day forecast methodology overestimates the Peak Degree Days.

9.12 The Test Year forecast has lower total volume delivered (Base Case) and Peak day volume unchanged. This affects a number of elements such as the upstream Transportation costs and Storage Costs.

Concluding remarks on the “fairness” of the rate request

This portion of SaskEnergy’s Delivery Rate Application is disappointing. The Application is strong in opinions but lacking in facts and substantive data addressing the issues relevant to the “fairness” of the proposed rates.

It is reasonable to make that assessment because we believe that section C of Schedule B does not prevent SaskEnergy from providing information to allow us to assess the issue of “fairness” arising from its request for the increased delivery rates.

The result of the lack of information is that any member of the public who is concerned about issues of “fairness in rate making” is excluded from expressing an opinion about the issues of factual fairness arising from this Application. Interested and concerned members of the public instead will spend time and resources addressing procedural issues of how to obtain more information in order to assess issues of fairness and equity of rate adjustments.

In section 7, page 5 of this submission, (***Impact Assessment by the Consumers’ Association of Canada, Saskatchewan Branch, of SaskEnergy’s Rate Requests***) we estimated that SaskEnergy customers assigned to the Residential rate class would collectively be expected to pay close to 68% of the total proposed rate request. We also observed that those same customers accounted for about 23% of the total volume of gas delivered by SaskEnergy in 2007.

We made no attempt in section 7 to suggest that these facts were evidence of unreasonableness or unfairness in rate making. We simply reported on the facts we had established. At this point we would like to go beyond reporting facts; we would like to

evaluate the facts and try to understand why SaskEnergy believes it is appropriate to assign the major burden of the requested rate increase to customers in the Residential rate class. We would like to know why SaskEnergy recommended a rate increase of \$2 and not \$3 or \$1. We would like to be able to evaluate the facts in terms of “fairness” but we are not able to do that.

9. The “Reasonableness and Fairness” of the proposed rates and the Minister’s Order to the Rate Review Panel and its Terms of Reference

We have at various points in this submission made references to the Minister’s Order and Sections A, B, and C of Schedule B of that Order.

Page One of our submission quotes from the Minister’s Order to the Panel that it shall provide ***“an opinion of the fairness and reasonableness of SaskEnergy’s proposed rate changes”***. On Page Three we noted that we intended to undertake our analysis of SaskEnergy’s rate requests without reference to section C of the Ministers Order. (We have done that). We also stated we would identify when and where our concerns may be attributed to the terms of reference rather than action by SaskEnergy. (We have done that).

The reader of this submission will have noticed our frequent references to lack of information provided by SaskEnergy about specific issues. The list of our submitted questions is a record of the information gap CAC/SK determined existed prior to the hearings in August. The responses are incomplete and in part that relates to the position of SaskEnergy that it is not required to provide full information on issues listed in Section C.

We have reviewed the terms of reference and we do not believe they represent a barrier to the flow of information. They clearly prevent the Panel from making recommendations affecting factors listed in section C but we suggest they do not prohibit the release of information about those factors. We accept that SaskEnergy may interpret section C differently and for that reason has been reluctant to share relevant information.

We also know that the Minister’s Order stipulates that “The Panel will not publicly release or require SaskEnergy to publicly release commercially sensitive material”. We do not believe we have requested any information that could be deemed to be “commercially sensitive material”. ***The material we have requested and need for assessment purposes is material presented at public rate review hearings before other panels and boards across Canada.***

A serious consequence of the information gap is that the Consumers’ Association of Canada, Saskatchewan Branch, is not able to assess the reasonableness and the fairness of the proposed rate changes recommended by SaskEnergy.

We do not understand why information that is readily available to the public of other provinces in Canada is not available to the public in Saskatchewan.

The responsibility for an assessment will therefore rest with the Saskatchewan Rate Review Panel. We have concerns about its powers and ability to do that assessment. The reasons for our concerns are presented below.

The Minister's Order and the terms of reference are important. We have copied that part of Schedule B which speaks to Sections A, B, and C from APPENDIX A of the Minister's Order. It reads as follows:

APPENDIX A

**Schedule B:
SaskEnergy Delivery Rate Change Proposal Terms of Reference**

Terms of Reference

.....
.....
.....

In conducting its review, the Panel will consider the following factors:

- A) The reasonableness of the proposed changes to the rates in the context of SaskEnergy's forecasted delivery cost of service, comprised of:
 - (i) load forecast;
 - (ii) contracted transportation and storage service;
 - (iii) planned maintenance program;
 - (iv) operating, maintenance and administrative expenses;
 - (v) depreciation expense; and,
 - (vi) corporate capital tax.

- B) The revenue requirement resulting from the delivery cost of service.

- C) The Panel shall consider the following parameters as given:
 - (i) the current rate structure (i.e.. components and classifications);
 - (ii) the budgeted capital allocation, the rate base, and established corporate policies;
 - (iii) the budgeted 2008 rate of return on equity target of 9%;
 - (iv) the existing service levels;
 - (v) the revenue-to-cost ratio target range of 0.95 to 1.05;
 - (vi) the cost of service methodology which allocates SaskEnergy's costs between the various rate classes;
 - (vii) all transportation and storage rates, including those set by TransGas Limited.

The Consumers' Association of Canada, Saskatchewan Branch, recognizes that sections **A** and **B** can be interpreted as identifying **issues** the Review Panel can address within its terms of reference. Section **C**, however, can be interpreted as identifying issues and topics that the Panel **shall not** review because the Panel is instructed to consider them as "given parameters".

An illustration of the limits imposed by the terms of reference and section C can be found by comparing the list of topics in section A with the components listed in Table 2 on page 10 of this Submission. Section C suggests that Net Earnings and Interest Expense shall not be subject to review and recommendations. There are other illustrations; most affect the analysis of the financial structure and the appropriate levels and rates of return on capital investment in SaskEnergy.

We have a major concern about sections A, B, and C and the internal consistency of their structural relationships in view of the Minister's Order requesting the Panel to provide "***an opinion of the fairness and reasonableness of SaskEnergy's proposed rate changes***".

"In conducting its review, the Panel will consider the following factors:"

The preamble to section A suggests the reasonableness shall be assessed in the context of "*SaskEnergy's forecasted **delivery cost of service** (emphasis added) comprised of....*"

The text of section B directs the Panel to consider: "***The revenue requirement resulting from the delivery cost of service***".(Emphasis added)

The preamble to section C states that "*The Panel shall consider the following parameters as given:.....*".

Section A requests the Panel to assess reasonableness of the proposed changes to the rates in the context of delivery costs of service but excludes some of the determinants/components of the revenue requirements identified by SaskEnergy in Table 2, page 10 of this submission, section B asks the Panel to determine the revenue requirements resulting from the delivery costs of service (the results from the analysis of section A factors), while section C prevents the Panel from analyzing the revenue requirements and the factors driving the revenue requirements by proclaiming that the factors determining the revenue requirements are fixed for the purposes of their considerations, they are given parameters!

We believe there is a serious inconsistency between the purposes of sections A, B, and C; it is most serious in the case of the relationship between sections B and C.

In our view this inconsistency imposes limitations on the ability of the Panel to review all factors affecting SaskEnergy's revenue requirements and delivery costs of service and will prevent the Panel from assessing the fairness and reasonableness of SaskEnergy's proposed rate changes.

Furthermore, this could undermine the credibility of any opinions the Panel might wish to offer because it does not possess the authority to consider and review the factors that are relevant to the assessment of reasonableness and fairness.

Our assessment of the current review process begs the question who will ultimately assess the consequences of SaskEnergy's current request and make a determination on reasonableness and fairness?

10. CAC/SK's Conclusions and Recommendations

Our Conclusions

In our introductory section we expressed the view that the customers of SaskEnergy are entitled to be assured that SaskEnergy is an “efficient monopolistic distributor” and that SaskEnergy’s distribution rates are “fair and equitable within and across the customer rate classes”.

The participation by the Consumers’ Association of Canada, Saskatchewan Branch, in the current rate review process was based on these propositions and we have consistently and persistently focused our participation around our ability to assess the fairness and the reasonableness of the proposed rate changes.

We have not been successful.

In section 7 of this submission we estimated the monthly revenue increase from the proposed rate changes would generate about \$766,666 or \$9.2 million annually. *On the basis of the information that was made available we could not determine “the reasonableness” of the projected increase.*

We estimated further in section 7 that the Residential class customers would pay about 68% of that increase despite the fact they receive about 23% of the volume of gas delivered annually. *On the basis of the information that was made available we could not determine “the fairness” of the recommended distribution of the projected increase across rate classes.*

Finally in section 7, we reviewed the distribution of the projected rate increase within the Residential rate class. We concluded that by increasing the fixed fee only, the relative burden of the projected rate increase is shifted towards the customers in receipt of the smallest deliveries of gas. *On the basis of the information that was made available we could not determine “the fairness” of the recommended distribution of projected increase within the Residential rate class.*

We have not been able to complete the limited analysis we did with respect to the Residential rate class for any of the other rate classes. *The necessary information was not available.*

- A. The Consumers’ Association of Canada, Saskatchewan Branch is concerned about the limited amount of information that has been made available for purposes of assessing the proposed rate changes by SaskEnergy. That citizens of other provinces have ready access to information denied to Saskatchewan citizens compounds our concerns.**
- B. The absence of relevant and important information is not compatible with our attempts to assure the customers affected by the rate application from SaskEnergy that the proposed rates are fair and reasonable.**

- C. The Consumers' Association has not been able to assess the fairness and the reasonableness of the proposed rate changes.**
- D. We do not consider SaskEnergy's impact assessments of the proposed rates to be acceptable measures of reasonableness and fairness. They are confusing and they are misleading. They are inadequate.**

Our Recommendations

Throughout this submission we have developed several recommendations. We understand that the Saskatchewan Rate Review Panel can only respond to recommendations that are within its Terms of Reference. Nevertheless we would like to begin by asking the Panel to submit the following recommendations to the Minister:

- 1. That the Saskatchewan Rate Review Panel be instructed to conduct a full and complete review of SaskEnergy's "Cost of Service".**
- 2. That the Saskatchewan Rate Review Panel be instructed to conduct a full and complete review of SaskEnergy's "Cost Allocation" and "Rate Design".**
- 3. That the Cost of Capital and in particular the Cost of Equity of SaskEnergy Distribution should be the subject of an independent consultant's report to ensure it is appropriate for a Public Utility such as SaskEnergy Distribution.**

We believe our remaining recommendations are within the Terms of Reference of the current review. They are as follows:

- 4. That the Saskatchewan Rate Review Panel takes steps to increase the flow of relevant information to participants in its rate review processes. This can be accomplished by requiring the rate applicants to supply financial records showing past years⁵, current year, and the forecast year (Test Year). In addition the Panel should remove restrictions on the release of financial information other than commercially sensitive material that the rate applicant may claim flows from the Terms of Reference issued by the Minister.**
- 5. SaskEnergy should be asked to present a new Customer impact analysis of the Delivery Rates only. This analysis should take into account the volume of gas delivered across and within each rate class in conjunction with a sensitivity analysis employing different ratios of fixed to variable fees across and within each rate class.**
- 6. SaskEnergy should be asked explain the consequences of pursuing an objective of recovering a fixed percentage of certain costs by way of fixed fee increases only.**

⁵ We note from page 4 of the Application document that the Distribution Division of SaskEnergy is "a separate division for accounting purposes and separate financial statements are prepared for this division and tabled in the Legislative Assembly each year". (Emphasis added)

- 7. We draw the Panel's attention to the following items in our submission and request they be considered as recommendations submitted by CAC/SK:**
- i. 8.1 SaskEnergy should be asked to explain why peak day requirements are not decreased proportionately with total volumes for residential and small commercial rate classes.**
 - ii. 8.4 SaskEnergy Distribution should be required to compare its performance relative to other Canadian Utilities in terms of the following standard industry metrics:**
 - O&M per Customer**
 - O&M per Km of Distribution Pipe**
 - O&M per M³ of gas distributed**
 - iii. 8.6 SaskEnergy should be asked to provide information regarding the tax base to which the tax rate of 0.6% is applied and the increase from 2,996 million in 2007 to 3,599 million in the Test Period.**
 - iv. 8.10 Sask Energy should be requested to clarify /amend the data in Schedule 1.6 to show the true gas marketing revenue either on a gross or net basis consistently for the years 2005-2009. If the data in Schedule 1.6 represent gross revenue then the original concern about under-forecasting of gas marketing revenue for 2008/09 is still valid.**

APPENDIX A

A NOTE TO READERS OF APPENDIX A

Appendix A is a copy of the submission the Consumers' Association of Canada, Saskatchewan Branch presented at hearing held in Saskatoon on August 13, 2008.

SSRP forwarded the questions to SaskEnergy and it returned the list of questions with its responses to each question on September 11. It is therefore a record of the questions and the responses to the questions.

The responses from SaskEnergy appear in blue characters below each question.

CAC/SK has not included the cover page of its "submissions of questions" with Appendix A.

SASKENERGY'S DELIVERY RATE APPLICATION

**QUESTIONS WITH SPECIFIC REFERENCES TO THE DELIVERY RATE APPLICATION
DOCUMENT FILED WITH THE SASKATCHEWAN RATE REVIEW PANEL ON JULY 16, 2008**

Section 1: Revenue Requirement

1. Reference: Page 2 and Schedule 1.1

- 1.1 How was the current annual Delivery Revenue Requirement of \$158.8 million established and which Government of Saskatchewan Agency approved it?

The current delivery revenue requirement is based on SaskEnergy's 2008 Business Plan which is approved by Crown Investments Corporation, with revisions to reflect new information.

- 1.2 Please provide information about SaskEnergy's annual Delivery Revenue Requirement since 1998 in the same format as Schedule 1.1 including the stipulated Net Earnings for each year.

Following are the Delivery Revenue Requirements for 2007 and 2008. Please note that in SaskEnergy's 2007 Rate Application, it was noted that the cost of service did not change since 1997, therefore no delivery rate changes were implemented.

SaskEnergy Incorporated
Comparative Delivery Revenue Requirement Summary
(in \$ 000's)

Components	2007	2008-09
	June	Applied for
	75,003	84,055
Operating & Maintenance Expense		
Transportation & Storage Expense	37,294	38,888

Depreciation Expense	26,705	25,989
Interest Expense	17,218	13,387
Tax Expense	3,227	3,599
Net Earnings	16,322	16,599
Total Delivery Revenue Requirement	175,769	182,517
Other Revenue	(14,355)	(14,539)
Net Delivery Revenue Requirement	161,414	167,978

3 What is SaskEnergy's Fiscal Year for financial reporting compared with the 2007 and 2008 Delivery Rate Test Years?

SaskEnergy's fiscal year ends December 31. The test period in the 2007 Delivery Rate Application is based on the 2007 fiscal year. The 2008 Delivery Rate Application test period is June 1, 2008 to May 31, 2009.

2. Reference: Page 3, third paragraph and Page 5, third paragraph

2.1 Please provide a history of SaskEnergy annual expenditures on Energy Efficiency/Conservation by rate class.

Rate Type	Residential / Farm	Commercial	General*	Total
2008	\$ 495,000	\$ 805,000	\$ 600,000	\$ 1,900,000
2007	\$ 494,704	\$ 784,127	\$ 275,863	\$ 1,554,694
2006	\$ 693,119	\$ 355,349	\$ 320,440	\$ 1,368,908

*General includes promotion/advertising that benefits residential, farm and commercial customer classes

These numbers do not include the programs that SaskEnergy administers on behalf of the Province of Saskatchewan which is approximately \$8.3 Million annually for Residential customers

3. Reference: Page 6, second paragraph.

3.1 Please provide complete details of SaskEnergy's methodology for determining the annual Delivery Revenue Requirement.

The Revenue Requirement is determined in accordance with the Cost of Service regulatory principle, and the components are specified in the Delivery Rate Application.

3.2 Is the Rate Base Rate of Return methodology used (as for most other regulated utilities in Canada)? If not why not? Please explain.

Yes.

3.3 Please provide information on the deemed/actual Capital Structure of SaskEnergy.

SaskEnergy's Distribution Division's deemed equity is 37%.

3.4 Please provide information on the allowed return/net income, including government direction and methodology for calculating the return.

The basis for the calculation is a risk adjusted return.

3.5 Why has SaskEnergy chosen a 12-month test period, but requested a 6 month prorated revenue requirement?

SaskEnergy delayed filing its June 1, 2008 Application in order to address various governance requirements, including the transition to a June 2008 to May 2009 test year.

3.6 What is the implementation date for the Delivery Rate change?

November 01, 2008, as shown on Page 2 of the Application.

3.7 Will the Commodity Rate and Delivery rate increases be implemented coincidentally and will there be a retroactive portion related to the Commodity Rate?

As shown in the applications, the Commodity Rate will be implemented October 1, 2008 and the Delivery Rate on November 1, 2008, if approved by Cabinet.

4. Reference: Page 8 Chart and Page 9 FTE increase.

4.1 Please provide the most recent data on annual O&M expense per customer for the utilities shown in the Chart on Page 8.

SaskEnergy does not have this specific information.
Contact information for each of these utilities can be found on the internet.

4.2 Please compare and discuss SaskEnergy's rank in the peer group.

SaskEnergy does not have sufficient information on the other utilities to respond.

4.3 Please provide a profile of FTEs per customer and per unit of gross delivery volume (net of losses and own use) for the past period 2003-2007 and a projection for the forward period 2008-2010.

SaskEnergy does not have this information readily available.

4.4 Please provide a breakdown of the cost of customer care for the past period 2003-2007 and the forward period 2008-2010, including meter reading, billing, call centre and customer communications.

Financial Accounting of actual results does not classify and group costs in the same manner as a cost of service study, which functionalizes, classifies and allocates costs specific to the test period contained in the Delivery Rate Application.

4.5 Please provide details about the annual cost of the Customer Information System (CIS) in total dollars and dollars per customer and/or per bill.

The annual costs in the 2008 Rate Application for the Customer Information System is \$1,657,462. On an average customer basis, this works out to \$4.99 per customer.

5. Reference: Page 9 and Schedules 1.4 a and 1.4 b

5.1 Please provide studies/explanations supporting the following proposed 2008 changes in depreciation rates/lifetimes:

- Land Rights
- Building and site Improvements
- Services
- Measuring and Regulating Equipment
- Meters
- Other Distribution Equipment
- Office Furniture and Equipment
- Natural Gas Vehicle Refueling Equipment
- Transportation Vehicles
- Heavy Work Equipment
- Tools and Equipment

As recommended by the Panel in its report on SaskEnergy's 2007 Delivery Rate Application, Cabinet directed SaskEnergy to have a depreciation study performed by an independent third party. SaskEnergy followed this directive, and adopted the recommendations contained in the report.

5.2 Please provide information about the increase in IS Assets for 2008/2009.

The increase to depreciation expense as it relates to Information System Assets is a result of changes due to a depreciation study along with additional capital expenditures placed into service in 2008 and 2009.

6. Reference: Page 10, Section 1.7 Interest Expense

6.1 Please provide a schedule showing the Total Debt and a breakdown of amounts and maturities and rates that add to the forecast 2008/09 interest expense.

Interest Expense Details

2008 Rate Application

Interest on Notes payable to Holdings Division	13,177
Interest on bank indebtedness	2,942
Bank fees	214
Interest capitalized	(82)
Sinking fund earnings	(795)
Interest allocated to cost of gas sold	(2,069)
	13,387

Bank indebtedness and interest allocated to cost of gas are determined based on short term debt balances and as such do not have maturity dates or itemized amounts rather a single short term cash/debt balance calculated on a monthly basis.

	Issue Date	Date Of Maturity	Coupon Rate %	Principal	Comments
1		1-Mar-08	9.00	20,485,500	
2		10-Jun-08	10.31	51,419	
3		3-Apr-09	10.31	4,328,176	
4		4-Jul-09	9.61	4,468,707	
5		1-Aug-09	9.41	2,123,937	
6		2-Oct-09	9.35	786,233	
7		1-Nov-09	9.62	4,327,357	
8	26-Feb-98	2-Jun-08	5.50	25,000,000	
9	4-Dec-98	5-Mar-29	5.75	25,000,000	
10	24-Mar-99	5-Mar-29	5.60	25,000,000	
11	2-May-00	2-May-20	6.67	11,814,000	
12	2-Jun-00	2-Jun-20	6.70	13,572,000	
13	3-Jul-00	3-Jul-20	6.57	8,585,000	
14	8-Aug-01	5-Sep-31	6.40	50,000,000	
15	10-Dec-04	3-Jun-14	5.25	25,000,000	
16	3-Jun-05	3-Dec-15	4.25	25,000,000	
17	Forecasted Bond	1-Sep-07	4.65	10,000,000	Replaces part of Bond 1 (above)
18	Forecasted Bond	1-Dec-08	4.73	25,000,000	Replaces Bond 8 (above)

Please provide information to compare the SaskEnergy debt rates with the debt rates of SaskPower in terms of basis point differentials.

SaskEnergy does not track the interest rates on SaskPower's debt.

7. Reference: Page 10, Section 1.8 Net Earnings

7.1 Please provide the Deemed Capital Structure of Sask Energy.

Refer to question 3.3 above for this information.

7.2 Please summarize and provide a copy of the Government of Saskatchewan direction to Sask Energy on Net Income for each year since 1998.

The business direction is provided through approval of the annual business plan by CIC. The Panel has reviewed SaskEnergy's financial information and has determined that it is fair and reasonable.

7.3 What is the basis of the quoted 9% return? Is it the return on total capital or return on a deemed equity amount. Please explain in the context of Question 7.1.

The Panel has reviewed SaskEnergy's 9% return on equity and has commented that it is fair and reasonable.

7.4 Please compare and comment on the target return of 9.0% with the BCUC approved ROE for Terasen Gas.

No Comment.

8. References: Page 11, Section 1.9 Other Revenue and Schedule 1.6

8.1 Please provide an explanation for the 50% reduction in Gas Marketing Revenues in light of the proposed major increase in commodity rates.

Gas Marketing revenues and the proposed increase in commodity rates are unrelated.

The profitability of Gas Marketing is dependant on four key variables: (1) the inter-month volatility of gas prices, (2) the operational ability of SaskEnergy to take advantage of this price volatility, (3) the ability of SaskEnergy to purchase additional Saskatchewan gas to take advantage of these market opportunities, and (4) the ability of Gas Marketing to anticipate directional changes in gas prices. A minimum of three (3) and at times all four (4) of these variables are required in order to result in profits for Gas Marketing.

The average annual profits generated from Gas Marketing activities for the period 1998 to 2007 has been \$2.6 million per year. This \$2.6 million was adjusted higher to reflect the profits of recent years, yet tempered somewhat by the decrease in expected opportunities in the Saskatchewan gas market resulting in a forecasted profit of \$3.0 million for 2008.

8.2 Please provide an explanation for the reduced forecast in Distribution Tolls. Are they related to changes in the toll/tariff schedule? Who determines and approves of proposed changes in that schedule?

Revenue forecasts are lower than 2007 because of lower customer numbers forecasted in 2008 along with lower 2008 Distribution toll rates as a result of the cost of service review on Distribution tolls. SaskEnergy's Executive is responsible for approving distribution toll rates.

Section 2.3: Recommended Delivery Rates

9. References: Pages 22 - 25, Section 2.3

9.1 Please explain why an Increase in Monthly charges is required.

Please see Section 2.3 of the rate application.

9.2 Please explain what changes in customer-related costs would make this increase necessary.

Some of the key areas that SaskEnergy is seeing increase costs are labour costs, rising prices for goods and services as well as vehicle operating costs.

9.3 Why isn't the volumetric charge reduced to make the revenue collected per customer revenue neutral for each class?

A reduction in the volumetric charge would result in an even larger increase to the Basic Monthly Charge.

9.4 The projected extra revenue to be collected from the residential and farm class customers exceeds the increase in the Delivery Revenue Requirement. Please explain why SaskEnergy considers this to be appropriate.

There is no projected "extra" revenue to be collected from residential and farm class customers. If the reference is to the delivery rate impact for these two classes (6.8%) exceeding the average delivery rate impact (5.8%) as outlined in section 2.3 of the application, currently both residential and farm customer classes are recovering 92% and 91% respectively of their costs. In following rate design principles and objectives, SaskEnergy has a long-term objective to have each class achieve a revenue-to-cost ratio between 0.95 and 1.05 for each class. Because these two classes are below this threshold, but General Service II and General Service III classes are currently within this range, the principle of fairness between rate class principles suggests a greater than average increase be assigned to residential and farm classes.

Section 3: Customer Bill Impacts

10. Reference: Page 28

10.1 Given the very large coincident increase in the Commodity Rate for residential/farm customers, why is it necessary to increase fixed charges for these customers at this time?

Commodity rates and delivery service are two different rates. Please refer to question 9.1 above for information on why increase fixed charges that relate to the delivery rate application.

10.2 Is SaskEnergy concerned that some customers may switch to electricity for some end uses?

SaskEnergy continually monitors its competitiveness with other fuel supplies.

10.3 Will the requested Delivery Rate increase trigger an increase in the transfer payments from SaskEnergy's customers to the urban municipalities? If there is an increase in the transfer payments, has this increase been included with SaskEnergy's estimates of the impact of the rate application for each rate class? What is the projected total increase in transfer payments to all urban municipalities in Saskatchewan and to the cities of Regina, Saskatoon, Prince Albert, and Moose Jaw?

Municipal taxes collected from SaskEnergy customers are a percentage of the dollar amount of their bill. If a customer's bill goes up, the percent stays the same, but 5% of \$110 is more than 5% of \$100. The same is true if a customer's bill declines.

Section 4: Load Forecast

11. Reference: Page 29

11.1 Please provide details of the 2008/2009 degree day forecast 55.9 HDD and the change in average use per customer by rate class.

Methodology and assumptions relating to the Peak Day requirements are found in Section 4.2 (p. 30-31) of the Delivery Rate Application. The degree-day forecast of 55.9 HDD, from the Peak Day Forecast, is the z-score calculation based from historical results. The mean peak day is 48.5 DD with a Standard Deviation of 4.49 DD.

SaskEnergy cannot track consumption by customer class on peak day.

11.2 Please provide historical 2003-2007 Forecast and actual Degree days and average consumption for each rate class.

	Peak Day (Prov. Average)	
	Actual Degree Day	Forecasted Degree Day <small>(1/20)</small>
2003/2004	56.3	55.4
2004/2005	52.2	56.2
2005/2006	48.1	55.9
2006/2007	48.8	56.2
2007/2008	52.9	55.8

SaskEnergy cannot track peak day consumption by customer class.

12. References: Page 30 and Schedules 4.2 and 4.

12.1 Please explain why 2 standard deviations from 30 year average weather is an appropriate error band.

The intent of those schedules is to illustrate the impact of extreme weather on delivery revenues.

12.2 What happens to the forecast revenue deficiency/sufficiency if the forecast is in error?

SaskEnergy does not have a weather variance account and therefore bears the risk of differences between the forecast and actual load.

12.3 On the basis of the information provided in this Rate Application Document is it now possible to determine who bears the weather risk of supplying natural gas to consumers at an approved pre-determined fixed rate in Saskatchewan? Is it SaskEnergy or its customers?

The Delivery Rate Application is based on customers' usage in normal weather.

QUESTIONS WITH NO SPECIFIC REFERENCES TO THE DELIVERY RATE APPLICATION DOCUMENT

13. More information.

13.1 Please provide a copy of the latest audited Financial Statement for the Distribution Division.

SaskEnergy's latest Annual Report can be found on the SaskEnergy website:
http://www.saskenergy.com/about_saskenergy/annual_report/default.asp.

APPENDIX B

This appendix contains the Curriculum Vitae of Dr. Roger Higgin

Roger M.R. Higgin

Roger Higgin has over 30 years of senior executive experience in the energy and environment sectors in both the public and private sectors.. His recent appointments include regulation of gas and electric utilities with the Ontario Energy Board. His other executive positions include COO in a high-tech firm, CEO in natural gas R&D, Assistant Deputy Minister of Energy Ontario Government, Deputy Commissioner of Environmental Services City of Toronto.

As an Associate of ECS since 2000, he combines his policy, strategic business planning and regulatory experience in his consulting work

CONSULTING EXPERIENCE

**Econalysis Consulting Services- Managing Associate Senior Consultant
2000 to present**

- Provision of consulting and advisory services and regulatory intervention support for Electricity, Gas and Telecommunications Regulatory Proceedings

- Electricity
 - Hydro Quebec Interruptible Power Rate
 - OEB RUD Model for Distribution Rates
 - Stakeholder Consultative-Independent Market Operator (IMO)
 - Review of IMO 2002 Fees Submission
 - Review of IMO 2004 Fees Submission
 - Review of IESO 2005 Fees Submission
 - Review of OPA 2006 Fees Submission
 - Review of Manitoba Hydro Wuskwatim Project*
 - OEB Review of Electric C&DM Programs
 - OEB Review of 2006 EDR Rate Handbook
 - HQD PGEE 2006-2010*

- Natural Gas
 - OEB Gas Distribution Access Rule
 - OEB Natural Gas Forum 2004
 - OEB Generic Gas DSM 2006
 - Enbridge Gas Distribution (OEB)
 - ♣ Consultative on Comprehensive PBR Plan
 - ♣ Quarterly Rate Adjustment Mechanism Applications
 - ♣ Consultative on Demand Side Management
 - ♣ Review of Rates 2002-2007
 - ♣ Incentive Regulation Plan 2008-2012
 - Union Gas (OEB)
 - ♣ Unbundling of Rates and Services
 - ♣ Consultative on Demand Side Management

- ♣ Quarterly Gas Cost Adjustment Mechanism Applications
- ♣ Review of Rates 2004
- ♣ Review of 2005 DSM Program
- ♣ Review of 2006 Rates
- ♣ Review of 2006 Interim DSM Program
- Other
 - ♣ Regie Societe en Commandite Gaz Metropolitan Unbundling *
 - ♣ Natural Resource Gas 2001 and 2002 rates ADR Settlement
 - ♣ BCUC Gas- Gas Cost Adjustment Mechanism Staff Paper
 - ♣ BCUC Outsourcing of Customer Care to CustomerWorks LLP
 - ♣ Sithe Energies Canada Application for natural gas Supply Pipeline
 - ♣ ATCO Gas/Electric Transfer of Default Supply to Direct Energy *
 - ♣ Gazifere 2005 Rate Application*
 - ♣ Gazifere 2007 Rate Application
- Telecommunications Sector
 - CRTC PN 00 27 Restructured Bands
 - CRTC PN 00 99 Scope of Price Cap Review
 - CRTC PN 01 125 Monitoring Canadian Telecommunications Industry

***Regulatory Testimony/Expert Opinion**

2007

Manitoba Public Utilities Board

Centra Gas DSM Program; Testimony Sponsored by CAC/MSOS

2006

Regie De L'Energie Quebec

-Gazifere Inc. 2006 Rates-Proposal for Incentive Regulation Mechanism
Testimony on Behalf of Option Consommateurs

2005

Regie De L'Energie Quebec

-Hydro Quebec Distribution -Review of PGEE 2006-2010

Testimony on Behalf of Option Consommateurs

-Gazifere Inc. 2005 Rates-O&M Expense and Corporate Cost Allocations

Testimony on Behalf of Option Consommateurs

2004

Manitoba Public Utilities Board

-Review of Manitoba Hydro Wuskwatim Project-

DSM, Windpower alternatives and Business/Partnership Arrangements

Testimony on Behalf of Manitoba Society of Seniors (Public Interest Law Centre)

2003

Alberta Energy and Utilities Board

-ATCO Gas/Electric Transfer of Default Supply to Direct Energy *

“No Harm” Test in context of transaction/transfer

Testimony on Behalf of City of Calgary

2001

Regie De L'Energie Quebec

-Societe en Commandite Gaz Metropolitan Unbundling of Rates

Testimony on Behalf of Option Consommateurs

Employment History

Ontario Energy Board

Board Member 1996 to 2000 (Retired June 2000)

- Regulation of gas and electric utilities in Ontario. Holding proceedings, writing and rendering Decisions and Orders. Scope included facilities, rates, gas cost and generic proceedings. Examples are rates for Enbridge Consumers Gas and Union Gas, PBR plan for Enbridge Consumers Gas, standard supply service for electricity distributors, revenue requirement and transmission rates for Ontario Hydro Services Company (now Hydro One).
- Member of Rates and Licensing Committees of Board and team member for development of Codes.
- Deregulation
 - Chaired/Participated in the Following Regulatory Proceedings:
 - ♣ 1999 and 2000 revenue requirements and rates for Ontario Hydro Networks (now Hydro One) – Transmission and Distribution
 - ♣ Hearing on Standard Supply Service (SSS)
 - ♣ Rates for unbundled Transmission tariffs for Hydro One
 - Member of Internal Committee on Codes and Standards:
 - ♣ Transmission Access Code
 - ♣ Retail Settlement Code
 - ♣ Affiliate Relations Code
 - ♣ Performance Based Regulation for Electricity Distributors
- Cost of Service Regulation
 - Review of Ontario Hydro Rates 1988-91
 - Review of Ontario Hydro Conservation Programs
 - Presided over and wrote numerous Rates and Facilities Decisions
 - Targeted PBR Decision for Enbridge Consumers Gas
 - Outsourcing of CIS-Union Gas Limited
 - Separation of Ancillary Programs – Union Gas Limited
 - Merger of Union Gas and Centra Gas Ontario
 - Affiliate Relations Rule
 - Gas Marketing Code
 - Member Internal Rates Committee

Unisearch Associates Inc.

General Manager and Chief Operating Officer 1995 to 1996

- Responsible for Business Planning, Reorganization, Refinancing and Restructuring of \$2 million high technology environmental instrumentation and service growth company. Establishment of marketing, production, financial management and securing new bank and equity financing. Strategic & Distribution alliances.

Gas Technology Canada and CGRI

President and Chief Executive Officer 1992 to 1995

- On behalf of Canadian Natural Gas Distribution Sector, operated \$8 million Natural Gas Research and Development program including Canadian Gas Research Institute Laboratory and the Gas Technology Canada technology development investment portfolio.

**Toronto Department of Public Works and the Environment
Deputy Commissioner Environmental Services Division
1991 to 1992**

- Responsible for new Environmental Services Division with 600 staff dealing with waste management, air and water quality, transportation systems management, infrastructure planning and development, Office of Energy Efficiency, departmental IT planning and capital budgeting.

**Ontario Energy Board
Board Member 1988 to 1991**

- Regulatory/Administrative Commissioner. Chairing Public Hearings-Electric & Gas Utilities. Review of Ontario Hydro Rates and Capital Plans.
- Writing Decisions and Orders.
- Representing Board at meetings & conferences.

**Ministry of Energy
Assistant Deputy Minister- Programs & Technology Division
1984 to 1988**

- Staff complement 74, annual budget - \$35 million.
- Input to Policy and Strategy on all aspects of Energy Supply and Demand
- Allocation of over 80% of the Ministry's budget to Conservation and Renewable Energy program priorities.
- Organizational design and organizational development in the Division.
- Federal/Provincial relations. Representing the Ministry at numerous public events involving speaking engagements, TV and radio.

**Ontario Energy Ventures
President 1986 to 1988**

- In charge of the wind-up of Ontario Energy Corporation's subsidiary (OEV) and \$100 Million in venture capital investments in technology companies.
- Director of eight of the subsidiary companies. Responsible for portfolio management, strategy and negotiations leading to divestiture, conversion of investments into carried interest or folding of companies.

**Ontario Ministry of Energy
Executive Coordinator 1980 to 1984**

- Alternative and Renewable Energy Group.

**Ontario Ministry of Energy
Senior Advisor 1974 to 1980**

- Special Studies and Renewable Energy.

**Ontario Ministry of Environment
1973 to 1974 Branch Head**

- Special Studies and Program Planning, Air Resources Branch.

**Ontario Ministry of Environment
1971 to 1973 District Engineer**

- Air Pollution Abatement Section

1970 to 1971-Consulting Engineer (Self-Employed)

1968 to 1970 Univ. of Toronto Post-graduate Research Fellow and Lecturer

- Chemical Engineering Department

Directorships & Committee Memberships Held

1995-96 Director-Unisearch Associates Inc.

1991-1995 Director -Gas Technology Canada, CGRI,

1984-88 Director - Ontario Energy Ventures

1984-88 Chairman of the Board-Ontario Energy Consortium Kenya/Canada Energy Project

1991 Chairman Energy and Minerals Task Force

Ontario Round Table Environment and Economy

1982-1988 Member-University Research Incentive Fund Selection Committee

Scientific Advisor-Premiers Council Tech Fund and NSERC

Professional Affiliations

Professional Engineers of Ontario

Education

Masters of Business Administration

University of Toronto, Faculty of Management Studies, Dean's List 1986

Ph.D.

Fuel Science and Applied Chemistry, University of Leeds, England, 1968.

Thesis: "Shock Tube Ignition of Hydrocarbon Fuels" - high speed chemical reactions and computer simulation of reactions.

B.Sc. with 1st Class Honours

Fuel Science and Combustion Engineering, University of Leeds, England, 1965.

Majors: Heat Transfer, Chemical Reactions, Coal, Oil and Gas Production and Utilization.

Selected Publications/Presentations

- Demand Side Management A Customer Perspective. CAMPUT Educational Conference Whistler BC April 2003
- PBR for Gas Utilities. Presentation to CGA Seminar. February 2002.
- Higgin, R.M.R., Dean, D.A., "Integrated Resource Planning", Presented at the Annual Meeting of the Ontario Natural Gas Association, Toronto, September 1990
- Higgin, R.M.R., "Non Utility Generation In Ontario", Presented at CAMPUT Educational Conference, Lake Louise, Alberta, May 1990
- Higgin, R.M.R., "Regulation of the Crown Owned Electric Utility In Ontario", Presented at CAMPUT Educational Conference, Lake Louise, Alberta, May 1990
- Higgin, R.M.R., "Conversion of Refuse to Energy in Ontario Canada and the Provincial Energy from Waste Program", Conversion of Refuse to Energy Conference, Berlin, West Germany, October 1979
- Higgin, R.M.R., "Ontario Biomass/Energy from Waste Program", CSCHE Conference, Halifax, 1978
- Orgill, J.F. and Higgin, R.M.R., "The Effect of Component Costs on Solar Systems Design", Renewable Alternatives Conference, Solar Energy Society of Canada, London, 1978
- Higgin, R.M.R., "Windpower Applications in Ontario", CSME Annual Meeting, Toronto, 1978
- Higgin, R.M.R., "Novel Energy Sources", 26th CSCHE Conference, Toronto, 1976
- Higgin, R.M.R., "Solar Heating for Buildings in Ontario", Sharing the Sun, Joint ISES/SESCI Conference, Winnipeg, 1976
- Higgin, R.M.R. and Brown, C.K., "Preliminary Assessment of the Potential of Wind Generators as Fuel Savers in A.C. Community Diesel Power Systems in Ontario", Sharing the Sun, Joint ISES/SESCI Conference, Winnipeg, 1976
- Chisamore, G.C. and Higgin, R.M.R., "Ontario Resources Recovery Program", Conversion of Refuse to Energy Conference, Montreaux, Switzerland, 1975
- Higgin, R.M.R., Ogner, D.J. and Shenfeld, L., "Frequency and Particle Size Distribution of Lead in the Toronto Urban Aersol", 1975
- Higgin, R.M.R., "Shock Tube Studies of the Dissociation of Ammonia and Methane", Joint ACS/CSCHE Conference, 1970
- Higgin, R.M.R. and Williams, A., "Ignition Delay of Methane/Oxygen Methane/Oxygen/Butane Mixtures in Shock Tubes", 12th International Symposium on Combustion, Poitiers, France, 1968

Articles

- Northern Miner, September 18, 1976; Renewable Energy Resources Merit Continuing Study"
- Conservationist, March 1977
- Ontario's Energy from Waste Program: Perspective March 1981
- Time for Reassessment of Alternatives: Oil Week July 1982

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- Demand Side Management A Customer Perspective. CAMPUT Educational Conference Whistler BC April 2003
- PBR for Gas Utilities. Presentation to CGA Seminar. February 2002.

- Higgin, R.M.R., Dean, D.A., "Integrated Resource Planning", Presented at the Annual Meeting of the Ontario Natural Gas Association, Toronto, September 1990
- Higgin, R.M.R., "Non Utility Generation In Ontario", Presented at CAMPUT Educational Conference, Lake Louise, Alberta, May 1990
- Higgin, R.M.R., "Regulation of the Crown Owned Electric Utility In Ontario", Presented at CAMPUT Educational Conference, Lake Louise, Alberta, May 1990
- Higgin, R.M.R., "Conversion of Refuse to Energy in Ontario Canada and the Provincial Energy from Waste Program", Conversion of Refuse to Energy Conference, Berlin, West Germany, October 1979
- Higgin, R.M.R., "Ontario Biomass/Energy from Waste Program", CSCHE Conference, Halifax, 1978
- Orgill, J.F. and Higgin, R.M.R., "The Effect of Component Costs on Solar Systems Design", Renewable Alternatives Conference, Solar Energy Society of Canada, London, 1978
- Higgin, R.M.R., "Windpower Applications in Ontario", CSME Annual Meeting, Toronto, 1978
- Higgin, R.M.R., "Novel Energy Sources", 26th CSCHE Conference, Toronto, 1976
- Higgin, R.M.R., "Solar Heating for Buildings in Ontario", Sharing the Sun, Joint ISES/SESCI Conference, Winnipeg, 1976
- Higgin, R.M.R. and Brown, C.K., "Preliminary Assessment of the Potential of Wind Generators as Fuel Savers in A.C. Community Diesel Power Systems in Ontario", Sharing the Sun, Joint ISES/SESCI Conference, Winnipeg, 1976
- Chisamore, G.C. and Higgin, R.M.R., "Ontario Resources Recovery Program", Conversion of Refuse to Energy Conference, Montreaux, Switzerland, 1975
- Higgin, R.M.R., Ogner, D.J. and Shenfeld, L., "Frequency and Particle Size Distribution of Lead in the Toronto Urban Aerosol", 1975
- Higgin, R.M.R., "Shock Tube Studies of the Dissociation of Ammonia and Methane", Joint ACS/CSCHE Conference, 1970
- Higgin, R.M.R. and Williams, A., "Ignition Delay of Methane/Oxygen Methane/Oxygen/Butane Mixtures in Shock Tubes", 12th International Symposium on Combustion, Poitiers, France, 1968

Articles

- Northern Miner, September 18, 1976; Renewable Energy Resources Merit Continuing Study"
- Conservationist, March 1977
- Ontario's Energy from Waste Program: Perspective March 1981
- Time for Reassessment of Alternatives: Oil Week July 1982