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October 2, 2009

British Columbia Utilities Commission  
6<sup>th</sup> Floor, 900 Howe Street  
Vancouver, BC  
V6Z 2N3

Attention: Ms. Erica M. Hamilton, Commission Secretary

Dear Ms. Hamilton:

**Re: Terasen Gas Inc. ("Terasen Gas")**  
**Customer Care Enhancement Project Application for a Certificate of Public Convenience and Necessity ("CPCN") to Insource Customer Care Services and Implement a New Customer Information System ("CIS") (the "Application")**  
**Response to the British Columbia Utilities Commission ("BCUC" or the "Commission") Information Request ("IR") No. 1**

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On June 2, 2009, Terasen Gas filed the Application as referenced above. In accordance with Commission Order No. G-107-09 setting out the Revised Regulatory Timetable for the Application, Terasen Gas respectfully submits the attached response to BCUC IR No. 1.

If you have any questions or require further information related to this Application, please do not hesitate to contact Danielle Wensink, Director, Customer Care & Services at (604) 592-7497.

Yours very truly,

**TERASEN GAS INC.**

***Original signed:***

Tom A. Loski

Attachments

cc (email only): Registered Parties



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## REQUESTED RELIEF

- 1.0 Reference: REQUESTED RELIEF**  
**Exhibit B-4, Chapter 1 Application, p.1**  
**Exhibit B-5, 2009 CPCN Application Workshop, Slide 20**  
**Exhibit B-4-2, Appendix X (Confidential Filing), Excel Copy 1**  
**Financial Model**  
**Exhibit B-1, the Company 2010/2011 RRA, p. 249**  
**Deferral Account**

Terasen Gas Inc. ("the Company") is applying to the British Columbia Utilities Commission ("Commission") for a Certificate of Public Convenience and Necessity ("CPCN") for: (1) the implementation of a new Customer Information System ("CIS"); and (2) insourcing key elements of the Company's customer care services. (Exhibit B-4, Chapter 1 Application, p. 1)

The Company is also seeking approval for the creation of a non-rate base deferral account attracting allowance for funds used during construction ("AFUDC") and approval to record incremental operating and maintenance ("O&M") costs associated with the Project that are incurred prior to the Project implementation date of January 1, 2012, for the purposes of permitting cost recovery. (Exhibit B-4, Chapter 1 Application, p. 1)

The Company is also seeking approval for the creation of a rate base deferral account into which the accumulated amount in the non-rate base deferral account will be transferred, effective January 1, 2012, for the purpose of recovering costs through customer rates. The approval of these deferral accounts results in the Project having no revenue requirement impact in 2010 or 2011. (Exhibit B-4, Chapter 1 Application, p. 1)

- 1.1 Please confirm that the request for a non-rate base deferral account (attracting AFUDC) is to record the estimated \$10.1 million in Deferred O&M cost as outlined in Exhibit B-5, Slide 20.

### **Response:**

The request for the non-rate base deferral account (attracting AFUDC) is to record all incremental costs associated with the Project that are incurred prior to the Project implementation date of January 1, 2012, for the purposes of permitting cost recovery.



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Although the main component of the incremental cost is the estimated \$10.1 million in O&M costs referred to in the IR, the deferral account will also capture any amounts related to the timing of when the Project is available for use and when it is added into rate base.

- 1.2 Will this non-rate base Deferral account record cost on a before tax basis or on an after tax basis?

**Response:**

Within the deferral account, items deductible for tax purposes will be recorded on a net of tax basis. Since it is expected O&M expenses will be deductible for tax purposes, these amounts will likely be recorded on an after tax basis. As a result, when the deferral is transferred into rate base on January 1, 2012, it will take into account any applicable tax savings.

- 1.3 If the non-rate base Deferral account is recorded on a before tax basis how will ratepayers benefit from the \$10 million tax deduction in 2011 that will reduce current tax payable by \$2.65 million (\$10 million X 26.5% tax rate)?

**Response:**

Please see the response to BCUC IR 1.1.2.

Page 249 of the Company 2010/2011 RRA, states that: "the Company believes it is prudent and therefore proposes that revenues, ongoing O&M and capital attributed to additions in 2010/11 be recorded in a non-rate base deferral account for the period of the RRA. In this manner, existing customers' rates will not be impacted in 2010 and 2011 by capital and O&M expenditures, and associated revenues that are too uncertain to forecast at this time."

- 1.4 Please confirm that the revenue requirement impact of the CIS additions to WIP in 2010 and 2011 will be capitalized in this non-rate base deferral account. If not please explain.



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**Response:**

In addition to incremental net-of-tax O&M impacts, the non-rate base deferral account will include depreciation and tax savings related to the timing of when the assets related to the CCE project are available for use and when the assets are added into rate base on January 1, 2012.

If the assets are available for use prior to January 1, 2012, for the intervening months, depreciation expense and CCA/income tax impacts will be recorded and AFUDC treatment will continue but only on the monthly depreciated net book value of the assets.

- 1.5 If the Capital costs of \$108.5 million are recorded in WIP, and the Company is not recording these amounts in a non-rate base Deferral account, would it be correct to conclude that shareholders will be earning a return in 2010 and 2011 on the WIP balance, and therefore rates in those years will be impacted.

**Response:**

AFUDC is applicable to the work in progress (WIP) associated with this project in accordance with BCUC Order No. G-63-92. Work in progress that attracts AFUDC is not included in rate base and correspondingly is not included in the earned return calculation and the revenue requirement; therefore, customer delivery rates are not impacted in 2010 and 2011.

During 2010 and 2011 the equity portion of the total AFUDC (as shown on Schedule S1, row 17), which is approximately \$1.7 million, will flow to shareholders, consistent with the application of the AFUDC construct. Effective January 1, 2012, the total AFUDC amount, along with the accumulated WIP amount, will be transferred into rate base and revenue requirements (and customer rates) will reflect the resulting impact at that time.

- 1.5.1 If yes, by how much?

**Response:**

Please see the response to BCUC IR 1.1.5.



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1.5.2 If yes, have these costs been included in the total cost of the project?

**Response:**

As discussed in the response to BCUC IR 1.1.5, the total AFUDC amount is included in rate base effective January 1, 2012, and is part of the total cost of the Project. Please see Schedule S1 rows 17, 18, 22 and 23 as well as in the cross referenced Schedule S3b of Appendix K.



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## CURRENT CUSTOMER CARE PROGRAM

### 2.0 Reference: CURRENT CUSTOMER CARE PROGRAM

#### Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec.

#### 3.1.3.1 Customer Information System, p. 38

#### The Peace System

"For example, over the past five years, Terasen Gas has implemented billing and reporting requirements related to the commercial and residential Customer Choice programs. Additionally, we have implemented the Innovative Clean Energy Levy in 2007 and the Carbon Tax in 2008. The applicability and design of both of these taxes was challenging to implement within the current CIS and included incremental costs for each implementation."

2.1 For 1999-2009, please provide the cost of implementing each significant change to the CIS by year and resource.

#### **Response:**

The following table shows the cost of significant changes to CIS since 1999.

Program Mercury	1999 - 2002	\$ 28.2 M
Commercial Unbundling	2004	\$ 6.2 M
Stable Rate	2004	\$ 150 K
Customer Privacy Changes	2004	\$ 18.8 K
Café (New Construction) Interface	2005	\$19 K
TGVI / TGW Conversion	2006	\$ 6 M
Customer Choice	2007	\$12.5 M
Ice Levy Implementation	2007	\$100 K
Squamish Amalgamation	2007	\$ 80 K
Carbon Tax Implementation	2008	\$ 159 K
Energy 8 Upgrade - Customer Choice	2008	\$ 781 K
Energy 8 Upgrade - Terasen Specific	2008	\$ 120 K
DSM Interface Support	2008	\$ 19 K
Customer Choice Enhancements	2008 - 2009	\$ 1.0 M
Carbon Tax Rate Change	2009	\$ 4.6 K
SAP Upgrade Testing Support	2009	\$ 6.7 K
Whistler Natural Gas Conversion EST	2009	\$ 68 K

Note: excluding Program Mercury the additional CIS related costs since 2002 are \$27,226,100.



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Program Mercury is not relevant to the existing customer care outsource arrangement. Costs incurred since 2002 are for the most part related to Unbundling/Customer Choice (\$20.5M) and TGV conversion to the existing outsource arrangement (\$6.0M).

These are broken down approximately as follows: Customer Choice related costs \$20.5M; TGV Conversion \$6.0M; Other \$0.7M.

2.2 Are more recent versions of the PEACE system available on the market?

**Response:**

In October 2008, CWLP upgraded the Peace CIS system from version 6.4 to version 8.04. It is Terasen Gas' understanding that when the upgrade was planned and budgeted for; this represented the most current version of the software. Peace has released 5 subsequent "point" versions since that time and the most current version available today is version 8.09. It is Terasen Gas' understanding that these smaller releases include patches to correct system bugs as well as to implement new client specific functionality. These point versions would be expected to be available in the next base release.

In support of CWLP's decision to not take on additional work related to these subsequent releases, Terasen Gas believes that unless there are significant functional or support requirements that are critical to the successful go live, multiple software upgrades should not be undertaken in the course of any implementation project. Terasen Gas supports the implicit decision not to have introduced these subsequent "point" versions during the Peace CIS upgrade project, given the Company's understanding of the value they would have brought vs. the risk that would have been introduced into that project.

2.3 If yes, why has CWLP not implemented the upgrades?

**Response:**

This response addresses BCUC IR 1.2.3 to 1.2.5.

CWLP is required under the Client Services Agreement Section 3.1 (b) of Schedule B to provide a supportable and sustainable CIS platform and therefore is expected to implement periodic upgrades from time to time. It is not a requirement of the Client Services Agreement that CWLP provide the most current version of the PEACE software. As stated in BCUC IR 1.2.2, CWLP



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has implemented a significant upgrade to the PEACE CIS system in October 2008 (from 6.4 to 8.04). There have been only minor "point" releases available since that time. These point releases are available approximately quarterly but would be expected to be grouped into a major release every eighteen to twenty-four months. At the time that a major release becomes available Terasen would expect CWLP to communicate their opinion on the value and risk associated with implementing. Should CWLP determine that the current version of the application is not supportable or sustainable, it would be CWLP's responsibility to initiate an upgrade at its own cost.

The cost associated with upgrading to the most recent "point" version while the current version remains supportable and sustainable would be an incremental cost borne by the Company and customers. In review of the minor "point" releases since October 2008, there does not appear to be significant functional or technical benefit in implementing the releases for Terasen Gas. Therefore, the Company has not sought to have CWLP make this upgrade at Company and customer expense, nor has TGI inquired about the cost of doing so.

- 2.4 Has the Company requested CWLP to upgrade the PEACE software to the latest version, and if not, why?

**Response:**

Please see the response to BCUC IR 1.2.3.

- 2.5 What would be the cost to the Company to have CWLP upgrade the PEACE CIS software to latest released version?

**Response:**

Please see the response to BCUC IR 1.2.3.





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**3.0 Reference: CURRENT CUSTOMER CARE PROGRAM  
Exhibit B-4, Chapter 4 Analysis and Alternatives,  
Sec. 4.1.3.4.2 Analysis of Peace CIS, p. 66  
The Peace System**

"Hansen did not address individual requirements and it provided insufficient supporting detail that could be verified or compared to any other alternative. This made it impossible for Terasen to evaluate the Peace solution in comparison with other alternatives."

- 3.1 Please list the deficiencies in the Peace CIS platform by service type (customer contact, meter reading, billing, payment processing, contract management, collections and CIS system support and maintenance).

**Response:**

Terasen Gas cannot provide a detailed list of deficiencies in the Peace platform by service type because Hansen did not respond to Terasen Gas' detailed requirements document to the degree of detail required to complete this task. Although a response was provided that discussed at a high level the application's features, Hansen declined TGI's request to file its response as evidence for this proceeding.

- 3.1.1 Please explain how the proposed customer care enhancement project will address the deficiencies in the Peace CIS platform.

**Response:**

The proposed Customer Care Enhancement Project will address the long term flexibility and support requirements of the CIS platform. SAP is a highly configurable application that continues to mature with industry requirements. This on-going growth and maturity is driven through a significant utility customer base. SAP also has a strong focus on and commitment to research and development of the customer system.

SAP (and its CIS application) is a leader in the industry and has a strong available support base to maintain and sustain the application in the future. Terasen Gas has specific skills and expertise that can be leveraged to support this system in the future. The specific skills are also generally available in the industry allowing Terasen to attract skilled resources to support SAP CIS.



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The Peace CIS platform is not widely employed in North America by utilities comparable to Terasen Gas. It is our belief that supporting the application locally is and will continue to be challenging. In terms of any specific deficiencies and the timeline to address these, as described in the response to BCUC IR 1.3.1, Terasen Gas was not provided with adequate information from Peace / Hansen to be able to describe these. Hansen also would not agree to TGI making available to the Commission the information that Hansen had provided to TGI.



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**4.0 Reference: CURRENT CUSTOMER CARE PROGRAM**  
**Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec**  
**3.3.1 Current Performance Challenges, p. 53**  
**The Peace System**

"From a technology perspective the cost to replace or enhance the current system would not be less than the cost that Terasen Gas has determined thorough the RFQ's for both the CIS system replacement and the acquisition of current call center technologies." (p. 53)

- 4.1 The Company has stated that it would cost more to enhance the current CIS system and call centre technologies than to replace the systems as determined through the RFQ's. Please provide support for this statement.

**Response:**

Given the lack of detail in the response from Hansen and Terasen Gas' past experience related to custom development work in the CIS area, the Company has to assume that the cost to deliver the same functionality as the recognized industry leaders in CIS packaged solution vendors (SAP and Oracle) as well as to keep pace with ongoing development, would be significantly higher. As business needs evolve and as customer expectations change, Terasen Gas believes that Hansen's approach to customizing solutions tailored to specific customers, while suitable for some customers, will require continual reinvestment in development to support the Company's future ability to respond.

The Company believes that the SAP CIS solution chosen is, in part, a market leader as a result of significant investment by the vendor. The SAP investment takes the form of investment in the product as well as the development of a strong customer user community on which to base and prioritize future product enhancements. Terasen Gas believes that this investment, in addition to the very large and varied SAP skill set in the marketplace from which to draw, and the existing extensive SAP platform that Terasen Gas currently employs will provide the Company with the opportunity to achieve future improvements in a very cost effective manner for the foreseeable future. There is no way to reasonably predict the cost associated with the ongoing enhancement of the current CIS. Based on the current adoption of the Peace CIS by other gas distribution clients of a similar size, the Company does not anticipate that there will be much advantage gained from enhancements made by other clients.

In discussions with Hansen, a partnering approach has been suggested by Hansen to enhance the application to current functional standards. This does not meet with Terasen Gas' packaged application strategy which supports the belief that industry leaders like SAP, through their support of a broad range of similar clients, will continue to invest in research and development



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for the benefit of all clients in response to the changes in the industry. New functionality will become available in response to the needs of the industry. Terasen Gas is not interested in taking on the cost and risk associated with building a "Terasen only" solution.



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**5.0 Reference: CURRENT CUSTOMER CARE PROGRAM**  
**Exhibit B-4, Chapter 2 Project Description and Schedule, Sec. 2.2**  
**The Evolution of Terasen Gas' Current Customer Care Operating**  
**Model: Business Process Outsourcing, p. 14**  
**CustomerWorks LP - CSA**

"Terasen Gas transferred its customer care assets, employees, and responsibility for the complete management of the customer care processes effective January 2002 to CustomerWorks after receiving Commission approval. The arrangement was formalized in the Client Services Agreement. The agreement received Commission approval on April 17, 2002 by Commission Order No. G-29-02 and remains in place today."

5.1 Please provide the value of the customer care assets and the number of employees transferred to CustomerWorks.

**Response:**

The value of the assets transferred to CWLP as at January 1, 2002, was \$48.4 M which represented the net book value of the assets at that time.

The number of employees transferred to CWLP effective January 1, 2002, was approximately 135. These employees supported Terasen Gas' call centre, billing and back office requirements for TGI's interior customers (approximately 235,000 customers at that time).

5.2 Please provide the number of the Company customers served by the Client Services Agreement in January 2002.

**Response:**

The number of customers served under the Client Services Agreement on January 1, 2002, was 765,000.



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**6.0 Reference: CURRENT CUSTOMER CARE PROGRAM**  
**Exhibit B-4, Application Background, p. 2**  
**Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec**  
**3.3.1 Current Performance Challenges, p. 53**  
**CustomerWorks LP - CSA**

"Since implementing the Project will have a consequent impact on the scope of the customer care services that will remain to be provided by CustomerWorks LP under the Client Services Agreement it is appropriate and convenient that the improvement initiative and scope change to the Client Services Agreement be approved at the same time as part of the relief sought in this Application."

- 6.1 Please provide a list of the services that will continue to be provided by CustomerWorks LP ("CWLP") under the Company's preferred solution as proposed in the Application.

**Response:**

Following implementation of the Project, the only service that will continue to be provided by CWLP in 2012 is manual meter reading services. Terasen Gas' customers currently enjoy the benefits of a joint gas / electric read through most of our service territory. We will continue with the current outsourcing arrangement for as long as joint manual meter reading is possible.

The Project provides the technological foundation, through the SAP CIS platform, to accommodate any form of meter reading, whether manual, automated or some form of smart metering strategy.

As it pertains to an automated meter reading solution, including smart metering, the recommended solution, once identified, may have requirements for its successful implementation that are not included in this Application. This will be determined at such a time as Terasen Gas has confirmed its automated metering strategy, but TGI is confident that the choice of the SAP CIS solution will accommodate whatever automated meter reading solution is chosen.

- 6.2 Currently, are all the Company's customer care services outsourced exclusively through the CWLP contract, or are some of the services contracted directly through Terasen Gas Inc.?



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**Response:**

Currently all of the Company's customer care services are outsourced exclusively through the CWLP contract. The only direct third party contract that Terasen Gas has retained in the Braille plus contract for Braille statement print services.

6.2.1 If yes, which customer care services are contracted directly through the Company?

**Response:**

Please refer to the response to BCUC IR 1.6.2.



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## 7.0 Reference: **CURRENT CUSTOMER CARE PROGRAM**

**Exhibit B-4, Chapter 2 Project Description and Schedules, Sec 2.2.1  
The Client Services Agreement, p. 15**

**Exhibit B-4, Chapter 3 Project Justification: Drivers for Change,  
Sec3.3.1 Current Performance Challenges, p. 53**

**Exhibit B-4, Appendix L, Client Services Agreement and Schedules  
CustomerWorks LP Contract – CSA**

"After the expiry of the initial five year term in 2006, the CSA is automatically renewed in perpetuity for additional terms, each being one year." (Exhibit B-4, Chapter 2 Project Description and Schedules, Sec 2.2.1 The Client Services Agreement, p. 15)

- 7.1 Under what clause of the Customer Service Agreement ("CSA") does the Company intend to rely on in order to enforce a scope change in the services provided through the CWLP contract?

### **Response:**

Terasen Gas intends to use Section 15, Scope Change Process, to implement the required changes to the services provided through the CWLP Client Services Agreement in order to support the objectives of this Application.

- 7.2 If necessary, under what clause of the Customer Service Agreement would the Company rely on in order to cancel the CWLP contract?

### **Response:**

Terasen Gas does not foresee the need to cancel the Client Services Agreement in order to achieve the objectives of this Application but will utilize the Scope Change provisions of the contract to implement the Strategic Sourcing model. In fact, the Client Services Agreement will continue to play a role in the Strategic Sourcing Model described in the Application. Specifically, the Amended Application (Section 4.4.2.4) indicates that meter reading will continue to be supported through the current arrangement. The contractual provisions for termination for cause are described in Section 18 Early Termination.





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"In 2008, Terasen Gas undertook an evaluation of the Company's customer care operating model and the provisions of the CSA to support changes in the model's structure. The current outsourcing arrangement imposes limitations on the options available to Terasen Gas. These contract provisions are foundational to understanding the alternatives that Terasen Gas investigated to support this project. The Client Services Agreement includes a right of first refusal provision whereby, if Terasen Gas chooses to go out to market to obtain cost estimates for continued outsourcing of the customer care services, the Company is required to include all of the services included in the agreement. If Terasen selects an alternate provider through this process, CustomerWorks LP has the right to retain the work by matching the selected bid in terms of cost, scope and quality of service articulated in the selected response. This right of first refusal provision is critical in this regard because it restricts the Company's ability to look at potential alternate providers for subsets of the services currently provided under the Client Services Agreement."

"As applied to billing and back office operations in isolation, the CSA limits Terasen Gas' ability, other than through the scope change provision of the agreement, to issue an RFQ for any discrete services that Terasen Gas might identify that are currently provided within the CSA's comprehensive suite of services. The limitation prevented Terasen Gas from considering other billing and back office opportunities." (Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec3.3.1 Current Performance Challenges, p. 53)

7.3 Under the terms of the current CSA contract would the Company ever be able to obtain a quote to outsource either the call centre or the back office billing operations?

**Response:**

Terasen Gas believes that obtaining a market comparable quote to outsource either the discrete call centre or the back office operations is impractical under the terms of the current Client Services Agreement. As discussed later in this response, TGI believes that the approach to the alternatives analysis taken in the Application is appropriately robust and provides the necessary confidence that the Application offers a competitive solution for customers.

While the Scope Change provisions under section 15 permit TGI to in-source functions as proposed in this Application, different provisions apply if TGI goes to market for the same components. Specifically, it would require TGI to terminate those specific services that TGI no longer requires. Section 3.4 "Termination of Specific Client Services at the End of Term or Additional Term" contemplates that if the Company should choose to terminate specific services where the specific client service is no longer to be provided by TGI to the customer or where the client service has changed in some way material to its delivery, the Company is required to



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issue an RFQ to third parties for the reduced services or the services to be substituted for the existing client services. CWLP would then have the right of first refusal related to the quotation chosen by TGI in response to that RFQ. CWLP, through its right of first refusal, would be obligated to meet all the conditions contained in the selected quotation, including the new pricing.

Any RFQ issued by Terasen Gas would also have to disclose the existence of the right of first refusal provision available to the incumbent. The Company does not feel it is appropriate to ask third party outsource providers to go to significant time and expense to prepare a quotation in a context where Terasen Gas does not intend to award a contract but is only looking for comparable pricing. Wholly apart from the dissatisfaction this approach could provoke among third parties participating in the RFQ process, taking this approach could have long term implications for the Company and its ability to attract bidders for other procurement projects, with resultant unfavourable impacts for customers.

TGI believes that the approach it has taken to assessing alternatives as they relate to the call centre and back office functions is robust. Each of the three elements that go into the call centre and back office functions – technology, facilities, and labour – has been benchmarked or market tested. For instance, the call centre technology was the subject of a competitive offering and the lowest bid was accepted. External consultants were used to identify the most cost effective option (buy, lease or build) for facilities. The staffing levels, a key labor cost driver, were benchmarked by third party experts. The collective agreement negotiated with COPE was market competitive. Whereas a third party provider would earn a profit margin on the entire expenditure, TGI's shareholder only earns on the equity portion of the incremental rate base. Very little of the call centre or billing and back office functions goes into rate base. In short, TGI believes that the market comparison contemplated in the preamble would add limited value to the process.

- 7.4 Given that obtaining an RQF for outsourcing the call centre or the billing and back office functions is limited by the CSA contract, why was obtaining a quote for the purchase of a CIS software solution and its implementation also not limited by the CSA contract?

**Response:**

Terasen Gas does not believe the CIS application, and specifically the implementation of a new CIS, is included in the existing scope of services described in the Client Services Agreement and therefore it is not part of the client services that might be the subject of an RFQ. Section 2.7 "Systems Support" of Schedule B to the current agreement describes the specific support



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services contemplated in the agreement related to the CIS application. As part of the scope change process that the Company intends to implement, these support services will be repatriated and the CIS application will be supported with in-house staff.

- 7.5 Is the Company expecting to incur any transitional cost in order to enforce a scope change or the cancellation of the CWLP CSA contract?

**Response:**

The Company anticipates that transitional costs will be incurred related to scope changes that will be made to the Client Services Agreement (CSA). The Scope Change provision is discussed in the responses to BCUC IR 1.7.1 and to 1.7.2. The nature of the transitional costs is discussed in BCUC IR 1.7.7.

It is necessary and appropriate for the Company to incur these transitional costs because they are a precondition to the implementation of the Project. The services provided under the terms of the CSA can not be changed or reduced without agreement on the level of transitional costs paid by Terasen Gas to CWLP. The reduction in the scope of services provided to Terasen Gas via the CSA will result in the reduction of O&M costs that are currently incurred and enable the Company to provide improved customer services directly for a lower cost to customers.

- 7.5.1 If yes, has a provision been included in the \$122 million cost and is so where?

**Response:**

Yes, a transitional cost associated with scope change reductions to the Client Services Agreement has been included as a project implementation cost. This cost is allocated to the CIS Implementation and Maintenance (refer to Confidential Spreadsheet 2, row 98), Call Centre Implementation (refer to Confidential Spreadsheet 2, row 278), and Billing Operations Implementation (refer to Confidential Spreadsheet 2, row 279) components. Confidential Spreadsheet 2, containing the detailed project costs, forms part of Exhibit B-4-2.



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"The discussions with Enbridge concluded with the agreement to form "CustomerWorks LP" (also referred to as "CustomerWorks" or "CWLP") as a joint venture that would provide outsourced utility customer care services to both companies, as well as marketing these services to the utility industry." (Exhibit B-4, Chapter 2 Project Description and Schedules, Sec 2.2.1 The Client Services Agreement, p. 15)

7.6 Does Terasen Inc. currently own a percentage of CWLP?

**Response:**

Yes, Terasen Inc. does own a percentage of CWLP. CWLP is a limited partnership owned 70% by Enbridge Inc. and 30% by Terasen Inc.

7.6.1 If yes, what percentage do they currently own?

**Response:**

Please see the response to BCUC IR 1.7.6.

7.7 In the event that transitional costs are to be paid to CWLP in order to enforce a scope change or a cancellation of the contract, what percentage of the penalty will Terasen Inc. be entitled to?

**Response:**

CWLP is a limited partnership involving Terasen Inc. and Enbridge Inc. Terasen Inc. holds a minority interest in CWLP. Under the Client Services Agreement, CWLP will assert recovery of non-avoidable costs including the costs of transition services related to scope changes. The transition costs to be paid to CWLP as a result of the scope change do not constitute a penalty. Terasen Gas Inc. is currently in negotiations with CWLP to obtain the minimum transition costs possible to satisfy CWLP under the Scope Change requirements of the Client Services Agreement. Under the proposals being discussed, TGI understands that Terasen Inc. does not anticipate that these costs will result in a net gain or loss to CWLP.



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- 7.8 Should transitional cost be incurred, what is the Company's intended treatment of these costs? Will they be borne by: the ratepayer, the shareholder, or shared between the ratepayer and the shareholder?

**Response:**

Costs incurred by TGI as part of providing service are properly borne by customers. As discussed in the response to BCUC IR 1.7.5, the transitional costs are an element of the negotiated Client Services Agreement between TGI and CWLP for providing customer care services to Terasen Gas' customers. The Client Services Agreement was approved by the Commission in 2002. Terasen Gas, therefore, believes that any transitional costs that are incurred should be included in overall project costs and rightfully borne by the ratepayer.



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**8.0 Reference: CURRENT CUSTOMER CARE PROGRAM**  
**Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec**  
**3.3.1 Current Performance Challenges, pp. 52 - 55**  
**CustomerWorks LP Contract – Performance of CWLP/Accenture**

"Although the arrangement has met the original outsourcing objectives and in general met service levels for measured metrics, the quality of service provided to customers in recent years has declined" (p. 52)

Table 3.2 on page 54 indicates 10 instances where service was below the target level in the period between July 2008 and June 2009. (p. 54)

8.1 Are the target levels for customer care set out in the CSA, and illustrated in Table 3.2, consistent with industry standards or are they higher or lower?

**Response:**

The target service levels for customer care set out in the CSA and illustrated in Table 3.2 were indicative of industry standards and current practice at the time the agreement was made. Terasen Gas believes these metrics are no longer appropriate under current and future market conditions. Given the importance of service metrics in understanding and managing customer service quality an updated approach related to service metrics will be a key deliverable of the CCE Project as discussed in Exhibit B-4, Section 4.5.2.3.

The Company believes that the metrics need to be adjusted to reflect current industry standards and / or replaced with new industry standard metrics. Through experience, Terasen Gas also believes that some metrics need to be measured more frequently. Monthly and quarterly metrics do not adequately address daily volatility issues. In the call centre for example a customer should expect to receive the same quality of service regardless of the time of day, day of the week or time of the month.

Other metrics that should be changed include the "call handling average speed to answer" metric of 75% in 30 seconds, which is too low and should be increased to 80% in 20 seconds.

The billing accuracy metric of 99.9% is higher than the current standard industry metric for mass market billing of 98%.

There are other metrics that are considered to be better indicators of service quality. In the call centre, for example, First Call Resolution is becoming the more common industry standard related to call centre service quality.



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The current service level metrics require updating to reflect the industry standards of today and the Project as planned will address and rectify those issues through better technologies and more robust business processes.

- 8.2 What are the industry standards for an acceptable number of exceptions for each of the call centre activities illustrated in Table 3.2.?

**Response:**

Terasen Gas is not aware of any published industry information related to the number of exceptions acceptable related to call centre activity in an outsourced environment. Our assumption, however, is that when metrics are established service pricing is set to ensure that the metrics can be achieved. The industry standard should therefore be zero exceptions.

Related to the call centre activity metrics Terasen Gas does not believe any of these metrics should not be achievable. Because the average speed to answer metrics for billing, collections and emergencies are currently defined as monthly metrics, CWLP only needs to achieve these service metrics as a monthly average. These service levels are monitored daily giving the provider ample opportunity to react to daily variances. The customer satisfaction metric is measured quarterly although the results are available monthly if not weekly. Again, Terasen Gas believes CWLP has ample opportunity to react to indicators that the quarterly metric is at risk.

- 8.3 Please provide an analysis of how the customer care target levels in the CSA compare to the customer care target levels expected to be achieved by the Company in its first six month of operation in 2012 and after one year.

**Response:**

Section 4.5.2.3 of the Amended Application addresses the approach that Terasen Gas is proposing related to service metrics for 2012 and going forward.

In 2012 Terasen Gas will support the existing metrics as defined in the Client Services Agreement while working to define a new structure and new metrics going forward. After one year of operating under the new model, Terasen Gas will incorporate the learning taken from the first year of operations as well as the best practices in the utilities industry at that time and implement new metrics that more accurately and completely measure both customer service



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quality and operational efficiency. Examples of Utility Best Practices related to the call centre are included for reference in Table 4.4.

- 8.4 For each call centre activity listed in Table 3.2, are the amount of exceptions experience by Accenture greater or less than industry standards?

**Response:**

Terasen Gas does not have access to specific performance adherence information for other companies. There are no industry standards related to the frequency with which outsourcers meet or do not meet the specific metrics in their contracts nor is this information generally available. Unlike the Terasen Gas/ CWLP Client Services Agreement, which has been filed through a public process and where a number of the service metrics are included in the Utility's negotiated performance metrics, most outsourcing agreements are confidential and the service metrics associated with these are not available.

- 8.5 For each of the five areas (Call Centre Billing Inquiries, Call Centre Customer Satisfaction, Call Centre Collection Inquiries, Mass Market Billing Accuracy, and Industrial Billing Accuracy) where service was provided below target levels please discuss, in detail, the reasons for the sub standard performance and identify it as either a result of an inadequate CIS system or issues with CWLP/Accenture?

**Response:**

The analysis below is based on information received from the outsourcing provider and reflects the root cause of the issues to the best of the Company's understanding. It reflects 14 instances where service was below the target set in the agreement.





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SQI	MONTH	REASONS
<b>Call Centre</b>		
Billing Inquiries	Oct 2008	<ul style="list-style-type: none"> <li>Terasen believes the primary reason for the delivery failure in the average speed to answer was a result of the implementation of the Peace 8.04 upgrade and the operational impact this had on the call centre in terms of temporary increases in call handle times and insufficient staff to accommodate the higher handle time while maintaining service levels.</li> </ul>
Collections Inquiries	Oct 2008	<ul style="list-style-type: none"> <li>Terasen believes the primary reason for the delivery failure in the average speed to answer was a result of the implementation of the Peace 8.04 upgrade and the operational impact this had on the call centre in terms of temporary increases in call handle times and not enough staff to accommodate the higher handle time while maintaining service levels.</li> </ul>
Customer Sat.	Jan – Mar 2009	<ul style="list-style-type: none"> <li>Call centre customer satisfaction was impacted during the first quarter of 2009 as the result of system and billing issues, including significant backlogs in the back office related to customer impacting transactions. As well a significant number of relatively new agents were hired in the fall in anticipation of heating season volumes who Terasen believes may not have been not well equipped to handle many of the complex inquiries.</li> </ul>
<b>Billing Mass Mkt.</b>		
Billing Accuracy	Aug 2008	<ul style="list-style-type: none"> <li>Billing errors were made related to the application of PST / ICE Levy due to a system issue introduced in error through a maintenance activity. The daily controls did not detect this issue before a significant number of billing errors were created.</li> </ul>
Billing Accuracy	Nov 2008	<ul style="list-style-type: none"> <li>An issue was identified in which critical rate change inserts for October were not included in customer statements resulting in billing errors. These were reprinted and inserted in December to ensure customers were appropriately notified.</li> <li>Another material issue related to bill messages that were not correctly applied to customer statements.</li> <li>Terasen believes both of these issues were the result of operational issues.</li> </ul>
Billing Accuracy	Dec 2008	<ul style="list-style-type: none"> <li>A system patch subsequent to the Peace 8.04 upgrade resulted in LPC (late payment charges) being charged incorrectly on customer accounts. The error was not identified during testing and one billing cycle was impacted.</li> </ul>
Billing Accuracy	Jan 2009	<ul style="list-style-type: none"> <li>On further analysis material changes in the configuration of the calculation of late payment charges were discovered. These were introduced with the upgrade in October 2008 but not discovered until January 2009. Terasen believes that the root cause of the errors was the system which could have</li> </ul>



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SQI	MONTH	REASONS
		<p>benefited from more rigorous testing in this area prior to implementation.</p> <ul style="list-style-type: none"> <li>• Another significant issue occurred related to the pro-ration of taxes in early January as a result of a configuration error when tariff rates were updated.</li> <li>• Tax description messaging was also impacted in January which Terasen believes was the result of issues with the third party bill composition provider.</li> </ul>
Billing Accuracy	Feb 2009	<ul style="list-style-type: none"> <li>• Upon further analysis additional late payment calculation errors were discovered that continued to be incurred into February but related to the original configuration issue delivered with the Peace 8.04 upgrade.</li> </ul>
Billing Accuracy	Mar 2009	<ul style="list-style-type: none"> <li>• An issue was discovered and reported in March of 2009 related to the set-up and conversion of tax exemptions related to Ice Levy, Carbon Tax and GST. It is the Company's understanding that the errors were due to onsite configuration and conversion issues.</li> <li>• The second issue related to the application of the deferred billing provisions of the tariff. Investigation indicates that the issue is the result of business process.</li> </ul>
<b>Industrial Billing</b>		
Billing Accuracy	Aug 2008	<ul style="list-style-type: none"> <li>• This is the same issue as described above for August 2008 related to mass market billing accuracy.</li> </ul>
Billing Accuracy	Nov 2008	<ul style="list-style-type: none"> <li>• An issue introduced with the Peace 8.04 upgrade related to the aggregation of daily consumption for monthly billing resulted in incorrect consumption being billed. A workaround was developed in lieu of a permanent fix.</li> </ul>
Billing Accuracy	Dec 2008	<ul style="list-style-type: none"> <li>• The issue from November continued into December as the workaround was refined.</li> </ul>
Billing Accuracy	Jan 2009	<ul style="list-style-type: none"> <li>• An issue was discovered related to the application of Taxes on high end charges. Terasen believes the error was due to configuration either at the time the tax was introduced or a consequence of the Peace 8.04 upgrade.</li> </ul>
Billing Accuracy	Feb 2009	<ul style="list-style-type: none"> <li>• The issue from January continued into the February reporting month. The manual process to correct the errors resulted in downstream errors.</li> </ul>

The analysis related to the service delivery failures is based on the limited information available to the Company. Terasen Gas does not have direct oversight of either the system support area or operations and therefore does not have more detailed information related to the issues. Based on the Company's understanding of the issues the reasons are a combination of system and service delivery challenges.



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- 8.6 In the Company's opinion, were the less than expected service level more a function of dated technologies or issues with CWLP/Accenture? Please discuss.

**Response:**

The current BPO agreement includes both the specific meter to cash functions as well as the tools required to support the business processes. Terasen Gas does not have detailed insight into the root cause of the various service delivery failures to definitively determine that in general the cause was a function of technologies or issues with the service provider. Please see BCUC IR 1.8.5. Either way, Terasen Gas believes that such service failures are potentially harmful to the Company and disruptive to customers and TGI would like to avoid them. As indicated on p.55 of the Application, TGI continues to work with the outsourcer to address these issues. Although we see temporary improvements through these escalations, the Company is not confident that the improvements are sustainable over the long term without both significant investment in technologies within the outsourcer's operation, as well as a redefinition and renegotiation of service quality expectations.

- 8.7 In instances where contractual penalties were imposed were they paid to the Company by CWLP, Accenture or some other third party service provider?

**Response:**

All service penalties are assessed and paid to the Company by CWLP.

- 8.8 In the Company's opinion, how much would customer service level improve if the Company was to own and maintain an SAP CIS system as proposed in the Application but continue to outsource through CWLP or directly to Accenture.

**Response:**

In TGI's opinion the improvement in customer service quality if the Company was to own and maintain an SAP CIS system as proposed in the Application but continue to outsource through CWLP or directly to Accenture would not address the drivers that lead to the Project or result in improvements for customers equivalent to those that will result from the implementation of the Project as outlined in the Application.



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"We have also had a number of relatively high profile service quality complaints that escalated to the public forum that are indicative of overall declining service quality in the call centre as well as in the back office" (p. 55)

- 8.9 Please provide a list of the relatively high profile service quality complaints received in the past two years.

**Response:**

From January 2008 to date the company has addressed 26 Better Business Bureau complaints. Twelve of these related to late stage collection action. In light of the economic downturn the Company would expect escalations related to late stage collections to increase. The other 14 escalations related to billing issues. In general these are characterized by ongoing interaction with the contact centre prior to escalating. In the Company's opinion many of these issues should have been handled and closed by call centre staff.

We also have had two issues that were aired in the public forum via CTV's "Olsen on Your Side", The first related to a billing error that generated an \$11,000 bill to an elderly customer. The CTV interview aired on March 9, 2009.

The second issue related to a switched meter situation that was identified by a customer in July of 2008. Final adjustments were made to the account in June and the CTV news segment aired on June 10, 2009.

The latter two complaints were high profile service quality complaints received in the past two years.

- 8.10 What does the Company believe were the drivers behind these complaints? Were they a result of an inadequate CIS system or issues with the level of service provided by CWLP/Accenture?

**Response:**

Terasen Gas believes that the drivers behind most of the escalated complaints relate to the level of service provided by CWLP. It is our observation that most of the escalations are



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initiated by a singular event, such as a high meter reading, a billing error, a payment plan update or a field service issue, for example. The escalations in general are the result of ongoing dialogue with customers where we are not able to adequately address their concerns. Most escalated complaints are a composite of a number of service delivery failures including providing inaccurate and inconsistent information to the customer and failing to address customer issues in a timely manner.

"In recent years, largely due to staff turnover and the need to upgrade the underlying technologies to a more stable environment, the quality of service has been declining." (p. 54)

"...the Company is not confident that the improvement can be sustained over the long term without significant investment in technologies within the outsourcer's operations, as well as a redefined and renegotiation of service quality expectation." (p. 55)

8.11 If the Company were to own and maintain an SAP CIS system as proposed in the Application, would the Company consider the option to outsource the call centre and the billing and back office operations to CWLP/Accenture or another service provider?

**Response:**

The Company considered the option of an internally owned and operated CIS system combined with continued outsourcing in the call centre and billing and back office operations, but this was dismissed as the Company believes that the level of control and flexibility required to support call centre and billing and back office business processes requires that these key customer-facing activities be supported through an internal organization. Please see pages 78-79 and 88 of the Amended Application.

With respect to the reference to another service provider, the Client Services Agreement provides CWLP with a right of first refusal in the event TGI were to receive quotations from third parties for call centre and billing functions. As outlined in the Amended Application (p.79), the existence of the right of first refusal would act as a practical impediment to the ability of Terasen Gas to obtain third party interest in any event.



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**9.0 Reference: CURRENT CUSTOMER CARE PROGRAM**  
**Exhibit B-4, Chapter 1 Application, Sec. 1.1.2 Drivers for Change, pp. 3-4**  
**Exhibit B-4, Appendix J**  
**Service Quality Metrics**

"When service has fallen short of contractual standards, which has happened more frequently of late, CustomerWorks LP has been required to pay contractual penalties to Terasen Gas. The payment of penalties to Terasen Gas accompanied by service shortfalls is not a sustainable model going forward."

9.1 Please identify the 2008 service quality metrics where service has fallen short of contractual standards.

**Response:**

The table below represents the 2008 contracted service quality metrics where service has fallen short of contractual standards and where penalties have been assessed.

2008 Metrics Summary	Target	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Schedule A - Customer Contact Services</b>													
General/Billing Inquiry	75%	65%	58%								51%		
Emergency	95%												
Other Inquiries (email, web, fax, mail, etc.)	98%												
Call Quality - Performance	85%												
Customer Call Satisfaction - Quarterly Average	62%												
<b>Schedule B - Billing Support Services</b>													
Accuracy	99.9%	91.5%							71.7%		67.0%	96.2%	
Timeliness	95%	16%	89%	88%									
Completion	95%	93%											
<b>Schedule D - Credit &amp; Collection Services</b>													
Inbound Collection Inquiries	65%		30%								42%		
Active Collections Handling	13												
Call Quality - Performance	85%												
<b>Schedule E - Industrial &amp; Off System Support Services</b>													
E1. Accuracy	99.5%	66.0%	98.3%					89.0%	95.0%		88.4%	96.3%	
E2. Timeliness	95.0%	0.0%		10.1%									
E3. Completion	95.0%											89.7%	
<b>Schedule I - Customer Choice Operational Services</b>													
I1. Timeliness - Confirmation Letters	99%	83%	75%	84%									
I2. Timeliness - Enrolment Processing	95%	85%	94%	81%	94%								
I3. Timeliness - New Group Set-Up	98%												



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The service delivery failures in 2008 were substantial. The two most significant contributors to these failures were the business failure of the outsourcer's third party print provider in early January and the Peace 8.04 upgrade in October. TGI believes that repeat occurrences of such failures, which can have significant and lasting implications for the Company, can be avoided by the implementation of the Project.

For additional discussion please see the responses to BCUC IR 1.8.5 and 1.8.6.

- 9.2 Please identify the 2009 YTD Actual service quality metrics where service has fallen short of contractual standards.

**Response:**

The 2009 YTD actual service metrics where service has fallen short of contractual standards are indicated in Table 3.2 of page 54 of the Amended Application. There are three areas of concern year-to-date:

1. Customer satisfaction for call centre services was below target for the first quarter of 2009;
2. Billing accuracy for mass market was not met for January, February and March of 2009; and
3. Industrial billing accuracy was also not met for January and February of 2009.

In cases of service delivery failure, penalties were assessed as provided in the Client Services Agreement.

Please see the responses to BCUC IR 1.8.5 and 1.8.6 for further discussion regarding service shortfalls.



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9.2.1 How has CWLP attempted to address the shortfalls?

**Response:**

CWLP has attempted to address the shortfalls at its own cost. However, these shortfalls often have significant impacts on customers and it is only possible to correct the issues going forward. Given that issues continue to occur, Terasen Gas is concerned about the sustainability of the solutions that are implemented.

CWLP's willingness to invest in implementing lasting solutions might depend on whether it is cost effective for them to do so relative to the cost of continuing to pay penalties. TGI has no ability to assess whether that is in fact occurring. Regardless of the cause of the continued service shortfalls, TGI believes it is in the long term interests of the Company to have a model in place that ensures the needs of customers are being consistently met. This need will be met by the CCE Project.

9.2.2 Is CWLP responsible for the cost (additional labour, training) of remediating service that falls below contractual standards?

**Response:**

Yes, the cost of remediation is the responsibility of the service provider.





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**10.0 Reference: CURRENT CUSTOMER CARE PROGRAM**  
**Exhibit B-4, Chapter Project Description and Schedules, Sec 2.2.2**  
**Current Customer Care Costs, pp. 16 – 17**  
**Current Customer Care O&M Costs**

Table 2.2 on page 17 of Exhibit B-4 calculates the expected cost per customer of the current outsourced solution through CWLP. In Table 2.2 the Company has determined the following five components make up the current Total Customer Care Costs.

Line 1 Base Contract (CSA)  
Line 2 Other Services  
Line 3 Scope Changes  
Line 6 Administration  
Line 7 Banner Conversion

**Line 1 Base Contract (CSA)**

- 10.1 The projected Base Contract (CSA) (line 1) cost rise by approximately 2 to 4 percent annually from 2008 to 2011p and then jump by 11 percent in 2012p. Please provide an explanation for the significant increase in projected Base Contract costs in 2012.

**Response:**

Table 2.2 indicates that the cost of the Client Services Agreement is projected to increase by approximately \$6 million in O&M from 2011 to 2012. This increase is comprised of two major cost increases, one caused by inflation and customer growth and the other by an assumption that the Company needs to find a new manual meter reading solution in 2012. The increase in 2012 caused by inflation and customer growth, applied per the terms of the Client Services Agreement, is approximately \$1.2 million. The remaining \$4.8 million increase in 2012 is caused by an anticipated need for a new manual meter reading solution.

In response to the Provincial Energy Plan the Company understands that BC Hydro is required to move to a Smart Metering Strategy by the end of 2012. Terasen Gas anticipates it will need to find a solution going forward, likely independent of BC Hydro. For the purposes of this analysis the Company has assumed a manual solution will have to be implemented for the gas read only. The same assumption is made in the costing for the proposed CCE Project, providing comparability of the results.



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- 10.2 Are services provided to TGVl and TGW under the CSA included in Line 1-Base Contract (CSA)?

**Response:**

Yes, Line 1 (Base Contract (CSA)) of Table 2.2 includes the total cost of the Client Services Agreement for TGI, TGVl, and TGW. Actual costs incurred are included to the end of 2008, with projected amounts incorporated for 2009 to 2012.

**Line 2 Other Services**

- 10.3 Please provide details of what makes up 'Other Services' in Line 2, and who currently provides these services to the Company.

**Response:**

The cost of Other Services set out in Line 2 of Table 2.2, includes a number of third party services added to the Client Services Agreement after it first came into effect after 2002.

The services are:

- Credit checks provided by TransUnion;
- Translation services for non-English speaking customers provided by CanTalk;
- Braille services for the visually impaired provided by Braille Plus.

The cost of the credit check and translation services provided under the terms of the contracts negotiated with these service providers is managed by CustomerWorks LP and are in addition to that of the base contract (CSA). The Braille Plus contract for Braille print services is managed by Terasen Gas.

- 10.4 Please explain the reasons for the projected 25 percent increase in costs from 2008 to 2009p?



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**Response:**

The total cost of Other Services as set out in Line 2 of Table 2.2 is projected to increase by \$44,000 from 2008 to 2009. These costs include the flow through of third party costs for contracts put in place after the outsourcing agreement.

Some of the costs incurred in 2008 were not invoiced promptly and therefore are reflected in the 2009 costs and resulted in a higher than expected cost in 2009. The projected costs for 2009 to 2012 assume that these timing differences remain at a minimum.

**Line 6 Administration**

"Currently, the total cost of the customer care function is the cost of the Client Services Agreement [Table 2.2, line 1] plus the cost of the Terasen Gas contract management group [Table 2.2, line 6] that oversees the delivery of services as stipulated in the agreement. This group is also responsible for managing the implementation of new services requirements and regulatory and legislative changes."

- 10.5 Specifically referring to Table 2.2, line 6, what percent of the contract management group's time is dedicated to overseeing the delivery of services as stipulated in the CSA agreement and what percent is spent on the management and implementation of new services requirements and regulatory and legislative changes?

**Response:**

The majority, approximately 85%, of the contract management group's time is dedicated to overseeing the delivery of services as stipulated in the CSA. Approximately 15% of the time is spent on the management and implementation of new service requirements and regulatory and legislative changes. Regulatory changes include rate changes and legislative changes include tax changes.



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- 10.6 Is it technically correct for the time the contract management group spends on managing and implementing new services requirements and regulatory and legislative changes to be included in the current annual customer care costs?

**Response:**

This answer responds to BCUC IR 1.10.6, 1.10.6.1 and 1.10.6.2.

Terasen Gas confirms that, based on the current operating model, it is correct for the time the contract management group spends on managing and implementing new services requirements and regulatory and legislative changes to be included in the current annual customer care costs. The effort undertaken by this group includes changes to only those systems and processes that are directly related to customer care activities. The effort does not include other utility work that goes into the planning and design of these requirements or any changes that impact non-customer care areas of the business.

This facilitation role will continue under the proposed strategic model. This role will support the design and development of business requirements, regulatory and legislative changes, and business process changes as well as measuring the results related to each change. All of the costs will continue going forward although a significant portion will be reallocated to operational requirements. The cost model assumes that specific resources in this area will be redeployed into operational roles within the new customer care area, either the call centre or back office.

The business need to support the activity of managing and implementing new services requirements is a necessary function under both alternatives, the current outsourcing arrangement or the proposed strategic model. The complexity of the function in an environment of significant business change will be different. In an outsourced model, given the Company's limited direct access to training and business processes, more effort will be required at an additional cost to ratepayers. In the proposed strategic sourcing model the Company expects that the level of knowledge of the individuals will be higher given their direct access to operations, resulting in less effort and more timely delivery of change. The proposed strategic model will also be supported through the planned operating resources.

The approach of accounting for the costs associated with the contract management group under the current model ensures that the comparison with the Project costs are on an equivalent footing.

- 10.6.1 Will these costs for the time the contract management group spends on managing and implementing new services requirements and



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regulatory and legislative continue to be incurred under the proposed strategic model?

**Response:**

Please see the response to BCUC IR 1.10.6.

10.6.2 If yes, how much of the cost will continue to be incurred?

**Response:**

Please see the response to BCUC IR 1.10.6.

10.7 Please provide an explanation for the projected 50 percent increase in Line 6 - Administration costs in 2009?

**Response:**

Line 6 sets out the cost to manage the Customer Care function by Terasen Gas, including the management and oversight of the Client Services Agreement with CustomerWorks LP.

The cost increase of \$259,000 from 2008 to 2009 is as a result of adding two employees required to provide additional oversight of the services provided under the Client Services Agreement. This additional oversight is intended to ensure better contract alignment and a stronger focus on customer service quality within the Company's outsourced customer care environment and specifically to provide more oversight and support to escalated complaints. In the course of implementing the Project, these employees will be redeployed to support other business requirements within the Terasen Gas organization.

**Line 7 Banner Conversion**

10.8 Please provide additional explanation for the Banner Conversion (line 7) costs, including an explanation for the negative value in 2006.



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**Response:**

The purpose of Table 2.2 is to provide a summary of the total costs that comprise the current customer care function. This total forms the equivalent of the cost of service.

The summary includes O&M costs in lines 1-6 that are incurred in the provision of customer care services to customers. It also includes the revenue requirement of the Banner CIS Conversion that was completed in 2006 on line 7. As pointed out above, the revenue requirement of the Banner CIS Conversion was included in this summary in order to provide a more complete picture of the level of costs paid for by customers today.

In terms of the costs set out for the Banner CIS Conversion that are included on line 7, the initial reduction in costs is caused by software tax savings related to CCA, which reduced the tax expense. This reduction results in a decrease in the revenue requirement, or costs, that customers paid.

- 10.9 Will the Banner Conversion cost be eliminated under the proposed preferred solution outlined in the Application, and if so how?

**Response:**

The Banner Conversion Cost will be fully amortized by the end of 2014 per the approved treatment in Commission Order No. C-15-05 dated July 29, 2005, and will therefore not be fully eliminated prior to the commencement of the Customer Care Enhancement project. The Company is of the view that the treatment of Banner Conversion costs as set out in Order C-15-05 remains appropriate and should not change because the Customer Care Enhancement Project preserves the benefits anticipated and realized by the TGI Customer Care Conversion Project. An alternative approach would be to write off the remaining net book value of the Banner Conversion costs on January 1, 2012. This alternative would have a minimal impact on the levelized cost per customer. Please refer to Section 6.7, pages 119-120, of the August 28, 2009 Amended Application for further information about the Banner CIS Conversion.



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## 11.0 Reference: **CURRENT CUSTOMER CARE PROGRAM**

**Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec 3.1.2 Evolving Competitive Environment, pp. 36-37**

**Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec 3.2.1 Customer Service is a Critical Success Factor, p. 40**

**Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec 3.2.2 Evolution of Customer Service, p. 40**

**Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec 3.2.4.2 Customer Care Delivery Model, p. 45**

**A Participants' Guide to the B.C. Utilities Commission, Chapter 1, p. 1**

**Exhibit B-4, Appendix G Angus Reid Customer Service Report, p. 3**

**Exhibit B-4, Appendix F, Terasen Gas Customer Care Research Focus Group Report, Sec 5.1 Current Methods of Communication, p.8**

### **Changing Customer Expectations – Service excellence**

"In situations as those described above [Electricity vs. Natural Gas], where customer's behavior is driven primarily by price, companies move away from competing on price, and towards alternative methods of **building customer value**.

One method is to deliver higher customer service. In order to meet this objective, companies are focusing their efforts in developing contact centre solutions that will differentiate themselves through service excellence."

"Terasen Gas' long-term success in the B.C. energy market rests in part on the ability to transform its customer service function into a **strategic asset**, which is best accomplished through insourced Terasen-owned capabilities." (Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec 3.1.2 Evolving Competitive Environment, pp. 36-37)



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"Terasen Gas competes for customers in an increasingly diverse energy market. Customer satisfaction and **loyalty** are important factors to ensure that the Company is positioned to retain and attract customers. The customer service experience is a critical factor in the overall value proposition." (Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec 3.2.1 Customer Service is a Critical Success Factor, p. 40)

"Customer service has evolved in importance and complexity over time. Organizations looking to provide **service excellence** as a means of competitive differentiation have changed their customer service structure and channels to maintain best practice delivery to customers." (Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec 3.2.2 Evolution of Customer Service, p. 40)

"Customer service is a **strategic asset** for companies in the **retention and attraction** of customers. Through this model, we will be positioned to support our long term success in the B.C. energy marketplace by differentiating the Company through customer service and transforming the customer service function into a **strategic asset**, which is best created through Terasen Gas owned and managed capabilities." (Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec 3.2.4.2 Customer Care Delivery Model, p. 45)

- 11.1 What evidence does the Company have to support ratepayer's willingness to bear the cost of the Company providing "service excellence" rather than safe, adequate, and secure services which is the Commissions primary responsibility as outlined in the Participants' Guide to the BC Utilities Commission?

**Response:**

The assumption implicit in the question appears to be that the Project cost will be higher than the current cost under the Client Services Agreement. In fact, the Project will bring the benefits of a customer care delivery model that enables the provision of "service excellence" to customers at a long term cost that is *lower* than the notional cost of the current model. This Project will also provide the Company with direct management control over customer care delivery and associated costs in the future.

TGI notes that the standard of service implied by the Act differs from the language cited in the question from the Participants' Guide (the former, and not the latter, sets the standards of service for public utilities). Section 23, for example, uses the phrase "reasonable, safe, adequate and fair service". Section 22 uses the phrase "safety, convenience or service of the public". TGI would take issue with the implicit premise in the question that the standards in the Act, or even providing safe, adequate and secure services as referenced in the question, dictate the provision of no more than a minimum level of customer service any more than it requires public utilities to invest in no more than the absolute minimum level of measures to ensure





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customer safety. At the end of the day, the appropriate level of expenditure on customer service (or safety) is determined with reference to whether the rates charged by the utility, which recover those costs associated with providing customer service (or making service safe), are just and reasonable.

The delivery of customer care service excellence is in the long term best interests of customers and is therefore reasonable and fair. Terasen Gas, although a gas monopoly, increasingly competes with providers of other energy sources. TGI has characterized the customer care function as being strategic because it is the primary interface between the Company and customers. Customer service excellence is an important factor in the retention and attraction of customers. Through retaining current customers and attracting new customers, the Company is able to spread its fixed costs over a larger total number of customers which will reduce rates to individual customers, all else being equal. This provides a benefit to customers over and above the expected cost savings of the proposed customer care model relative to the notional cost of the current model.

Feedback received directly from customers and customer research such as the focus group research conducted by Ipsos Reid (CCE Project Exhibit B-4, Appendix G), provide directional information that Terasen Gas customers expect the Company to bring forward advances in customer care solutions. The quantitative research study conducted by Angus Reid Strategies (CCE Project Exhibit B-4, Appendix H), highlights that the majority of customers expect additional service options to those available today.

The CCE Project best positions Terasen Gas to deliver customer service in a manner that is expected to be provided by many of today's customers and provides Terasen Gas with direct control over future changes as customer expectations continue to change over time.

- 11.2 What evidence does the Company have to support ratepayer's willingness to bear the cost of the Company to attract and retain customers and build customer loyalty?

**Response:**

Please see the response to BCUC IR 1.11.1.



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- 11.3 What evidence does the Company have to support ratepayer's willingness to bear the cost of the Company to differentiate themselves in order to build customer value?

**Response:**

Please see the response to BCUC IR 1.11.1.

- 11.4 What evidence does the Company have to support ratepayer's willingness to bear the cost of the Company to transform its customer service function into a strategic asset?

**Response:**

Please see the response to BCUC IR 1.11.1.

"Terasen Gas will be asking the BC Utilities Commission to allow the funding of improvements to their customer service. The improvements involve enhancements to online and automated telephone services as well as automated meter readings. In order to ensure the enhancements are desired by their customers, Terasen Gas engaged Angus Reid Strategies to conduct an online survey." (Exhibit B-4, Appendix G Angus Reid Customer Service Enhancement Report, p. 3)

- 11.5 Did the Company conduct any research regarding how much customers were willing to pay for the enhancements proposed in the Customer Care Enhancement Project?

**Response:**

The assumption implicit in the question appears to be that the Project cost will be higher than the current cost under the Client Services Agreement. In fact, the Project will bring the benefits of a customer care delivery model that enables the provision of "service excellence" to customers at a cost that is *lower* than the notional cost of the current model. Please see the response to BCUC IR 1.11.1.



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In specific response to the question, the Company did not conduct research regarding customer willingness to pay for individual enhancement components. Rather, the primary focus of the research, as reported in Appendix G, was to understand customer expectations related to a variety of electronic service options and customer contact channel preferences. The research conducted in respect of willingness to pay related to the potential introduction of automated meter reading which would be a significant change from the current customer experience with TGI and regional electric utilities. This differs from enhancements to electronic service options and contact channels that customers currently expect from Terasen Gas and receive from other organizations.

There are two main reasons why the research on "willingness to pay" in respect of individual components contemplated in the Project was not undertaken:

- First, the Company's changing business environment and direct customer feedback received in recent years highlighted improvement opportunities for Terasen Gas to evaluate in 2008 after more than seven years under its Business Process Outsourcing customer care delivery model and ten years with the current online and telephone service channel alternatives.
- Second, the Company believes that customers expect costs associated with service delivery to be included in prices or rates related to the delivery of a good or service, however, when asked about their "willingness to pay", consumer behaviour is such that many customers will voice a preference to pay very little or nothing at all.

Given this understanding, customer feedback, and the evolution seen in service channel options provided by other organizations, Terasen Gas believed the organization was lagging behind other service providers and focused its research investment on customer expectations related to service improvements rather than willingness to pay. The results of the research conducted highlighted that the majority of customers expect Terasen Gas to provide service options that are not available today. The fact that the cost for the provision of customer care service is now expected to be lower than the notional cost of the existing model provides TGI with additional comfort that the Project is delivering value to customers.

11.5.1 If yes, please provide the results of the research.

**Response:**

Please see the response to BCUC IR 1.11.5.



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11.5.2 If no, please explain why.

**Response:**

Please see the response to BCUC IR 1.11.5.

"One respondent however stated that customer service isn't the main factor in their decision making. Clearly, some consumers have lower expectation from businesses other than they are the low cost provider.

*"I might like this company...they're great when you call them but I'm not going to change my mind in who I'm going to choose. Because I'm really cheap and I'll go with the best deal. I don't care if it's good customer service, I mean if they really up [set me, maybe, I'll turn off them but that's not what makes my decision." (Exhibit B-4, Appendix F, Terasen Gas Customer Care Research Focus Group Report, Sec 5.1 Current Methods of Communication, p.8)*

11.6 Terasen Gas performed customer research to explore current and future customer services, products and communication needs. In this research some customers stated that they were not willing to pay for increased customer care enhancements. How has the Company addressed these ratepayers' requirements for the lowest rates possible?

**Response:**

For clarity, the objectives of the focus group research described in Appendix F included:

1. Understand consumers' current and future service expectations of Terasen Gas.
2. Understand consumers' current and future product needs from Terasen Gas.
3. Understand consumers' communications and messaging needs/preferences, including messages, formats and delivery.

This research did not address customer preference for the lowest rates possible as suggested in the question. While focus group results as referenced above are directional in nature, the Company understands that various customer groups have different expectations. While some



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customers will prefer the lowest cost among all alternatives, others place a higher value on customer service quality and available service options.

The Customer Care Enhancement (CCE) Project will provide service to the Company's customers at a long term cost that is *lower* than the notional cost of the current customer care delivery model. Terasen Gas expects that this would be viewed favourably by most customers.

Apart from the comparative costs between the Project and the notional cost of the current model, this Project will also provide the Company with direct management control over customer care delivery and associated costs in the future. We believe the Project will best position Terasen Gas to meet the needs of its various customer groups in the near and long term. As discussed in the response to BCUC IR 1.11.1, customer service excellence is critical in the retention and attraction of customers. Through retaining current customers and attracting new customers, the Company is able to spread its fixed costs over a larger total number of customers which will reduce rates to individual customers, all else being equal. This is in the interest of all customers.



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**12.0 Reference: CURRENT CUSTOMER CARE PROGRAM**  
**Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec 3.2.3 Customer Expectations Regarding Customer Service Delivery, p.42**  
**Changing Customer Expectations – Offerings and channels of delivery**

"Through market research and customer feedback, our customers have told us that we must be able to consistently:

Offer a range of interaction options;

Offer billing and payment alternatives;

Provide additional products and service options in response to customer needs;

Manage customer communication related to outages or restoration of service following an outage;

Provide timely and accurate meter reading data to support billing and address customer concerns; and

Ensure representatives have appropriate product and service knowledge and regional awareness in order to understand and relate to customer needs and experiences."

(Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec 3.2.3 Customer Expectations Regarding Customer Service Delivery, p.42)

12.1 What research has been performed to identify these six offerings as key customer care requirements for the Company's ratepayers?

**Response:**

The service attribute requirements referenced above have been identified through the Company's ongoing customer satisfaction research. This includes the four studies that comprise the annual Terasen Gas customer satisfaction index: the Residential Customer Satisfaction Study, Builders and Developers Customer Satisfaction Study, Large Commercial Customer Satisfaction Study, and Small Commercial Customer Satisfaction Study. Please see the response to BCUC IR 1.12.3.1 for more detailed information regarding specific offerings and customer satisfaction related to these attributes.



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In addition to the studies noted above, the performance tracking research that measures customer satisfaction following a customer's interaction with the call centre and direct customer feedback received through our day to day operations provide further customer perspectives regarding the above listed attributes and our service offerings.

- 12.2 Through the Company market research and customer feedback have the customers told the Company how much, if any, they would be willing to pay to have the services noted above?

**Response:**

As discussed in the response to BCUC IR 1.12.3.1, offerings related to the service attributes listed above are provided to Terasen Gas customers today.

The response to BCUC IR 1.11.1 notes that the focus group research conducted by Ipsos Reid (CCE Project Exhibit B-4, Appendix G) provides directional information that customers expect the Company to bring forward additional service options as customer care alternatives continue to advance. In addition, the quantitative research study that was conducted by Angus Reid Strategies (CCE Project Exhibit B-4, Appendix H), highlights that the majority of customers expect additional service options to those that are available today. Terasen Gas also receives direct feedback from customers requesting additional service options.

An implicit assumption in the question regarding "willingness to pay" appears to be that the Project cost will be higher than the cost of the current customer care delivery model. As discussed in the response to BCUC IR 1.11.1, the Project's implementation will result in a customer care delivery model that will provide additional services to customers at a long term cost that is lower than the notional cost of the current model. For further discussion of the Company's research related to customers' service expectations and "willingness to pay", please refer to the response to BCUC IR 1.11.5.

Terasen Gas believes that the current service offerings detailed in the response to BCUC IR 1.12.3.1 and the new offerings that will be implemented with the CCE Project are core to our overall service delivery to customers. The new services will be enabled through the existing functionality within the new CIS and call centre technology platforms. There are no incremental Project costs associated with implementing these additional service options that our customers expect the Company to provide.



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12.3 Specifically relating to each offering noted above, provide the following information:

12.3.1 Does the Company currently provide this offering to its ratepayers?

**Response:**

Following is a summary of the Company's current status related to the above noted service attributes, including current customer service levels and satisfaction.





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Attribute	Current Status	Service Levels & Customer Satisfaction
Offer a range of interaction options.	<p>The primary interaction option for customers is by telephone through the call centre. Email is manually supported, but with a service level that is not in keeping with current best practices. Electronic interaction options through the IVR and web are limited and include few self serve transaction options for customers.</p>	<p>Customer satisfaction with available communication channels is not currently tracked, however, direct feedback and research regarding customer expectations (Exhibit B-4, Appendix F and G) indicate the current limited options do not meet the expectations all customers.</p> <p>The service level for email is to respond to 98% within two business days. This is not in keeping with current contact centre metrics that integrate email requests into the contact centre agent queue.</p>
Offer billing and payment alternatives.	<p>The Company currently provides printed statements by mail or electronic statements and offers consolidated billing for certain customers. Services such as group billing and data file billing are not provided.</p> <p>Mass market customers can make payments by mail, through their financial institution's branch, IVR or online banking system, at limited drop box locations and by credit card over the phone or online. A third-party transaction fee is assessed for credit card payments.</p> <p>Commercial customers receive the same payment alternatives. Direct electronic payments are not supported today.</p>	<p>Satisfaction with the Company's billing alternatives is not specifically tracked in ongoing customer satisfaction research. Feedback from commercial and industrial customers in recent years has noted their desire for additional billing alternatives such as group billing and data file billing.</p> <p>Residential customers have access to a variety of payment alternatives. Satisfaction with this service element is not tracked.</p> <p>Small commercial customers' satisfaction with offering a choice of payment methods is tracked. The majority of small commercial customers report satisfaction with this attribute.</p> <p>Feedback from commercial and industrial customers in recent years has noted their desire for additional payment alternatives such as direct electronic payments.</p>



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Attribute	Current Status	Service Levels & Customer Satisfaction
Provide additional products and service options in response to customer needs.	Changing customer needs are a key driver of the Customer Care Enhancement Project. The additional services the Company plans to bring to customers with the Project implementation are in response to customer needs.	Direct customer feedback and research regarding customer expectations (Exhibit B-4, Appendix F and G) indicate the current service options do not meet the expectations of all customers.
Manage customer communication related to outages or restoration of service following an outage.	The Company follows established communications practices related to outage situations when they occur.	<p>In the event of small scale outages, call centre representatives are notified of the impacted area immediately. When a larger scale outage occurs, the call centre is notified, information for customers is posted on the Terasen Gas website home page, the IVR messaging is updated and local media are notified to advise customers in affected areas of the situation as quickly as possible.</p> <p>Customer satisfaction with specific communications related to outages is not directly tracked, but any feedback received following an outage is reviewed for improvement opportunities.</p>
Provide timely and accurate meter reading data to support billing and address customer concerns.	Terasen Gas' current practice for mass market customers is that a manual meter read for billing purposes is taken every second month. System generated estimated readings are used for billing on the alternating months. In situations where a manual read is necessary in an account investigation, a service technician will be dispatched to secure the reading.	The Company's target for billing accuracy is 99.9%. Overall satisfaction for billing accuracy among customers is generally positive; however satisfaction for quickly correcting billing problems is lower among all customer groups where this is tracked.



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12.3.2 If yes, please provide details of the level of customer service currently provided and ratepayer's level of satisfaction.

**Response:**

Please see the response to BCUC IR 1.12.3.1.

12.3.3 If activated could the current version of the Peace CIS Platform support this offering? What about an upgraded version?

**Response:**

The above-noted reference from the Amended Application discusses customer expectations of Terasen Gas and how those expectations are influenced both by customer interactions with the Company and with other organizations. Please see the response to BCUC IR 1.12.3.1 for a discussion of current activities supporting the expectations listed above.

Regarding offerings related to the above listing that are not provided today and the potential to address them with the Peace CIS platform, please refer to the responses to BCUC IR 1.3.1 and BCUC IR 1.3.1.1.

12.3.4 In order to activate the functionality required to provide the proposed communication channels would there be any additional costs to the Company other than those included in the 'Cost of Service and Rate Impact Analysis' in Section 6.4 of the Application?

**Response:**

No, there are no additional costs to the Company to provide the proposed communication channels other than those included in the 'Cost of Service and Rate Impact Analysis' in Section 6.4 of the Application.



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**13.0 Reference: CURRENT CUSTOMER CARE PROGRAM**  
**Exhibit B-5, 2009 CPCN Application Workshop, Slide 26, Functional**  
**Benefits**  
**Changing Customer Expectations**

- 13.1 At the September 11, 2009 Workshop the Company identified in slide 26 the functional benefits of the Company's preferred solution as proposed in the Application. Please fill out the template provided below in order to obtain an understanding of: what capabilities the Company currently offers; the possibility for the current PEACE system to be upgraded to provide these capabilities; and reasons behind needing these capabilities.



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		Is this capability currently being provided to ratepayers, and if so at what level?	Currently, what are the efficiency issues with the capability?	What additional benefits will this capability provide to ratepayers and why is it necessary?	If activated, is this capability available on the current version of the PEACE software? (YES/NO)	Is this capability available on later versions of the PEACE software? (YES/NO)	Is an upgraded CIS software, such as SAP, required in order to obtain the capability as required?	Is a fully insourced Billing and Back Office alternative required in order to provide this capability to ratepayers or is this capability solely dependant on the software solution?	Is a fully insourced Call Centre alternative required in order to provide this capability to ratepayers or is this capability solely dependant on the software solution?
<b>Billing and Payment Options</b>									
Electronic bill presentment and payment processing									
Group billing									
Data file billing									
Direct Electronic payments									
Improved billing on non-gas charges									
Increased flexibility for bill messages and inserts									
<b>Special Interests</b>									
Improved data capture of customer premise information (Landlords, property managers, third party billing)									
Rate comparisons - best rate analysis									
Rate and tax configuration flexibility									
Support for mass rate refunds									
<b>Customer Self Serve</b>									
Alternate channels, email, and online chat									
Online transactional support:	Online moves								
	Payment plan applications								
	Payment arrangements								
	High bill resolution tools								
Improved Access to consumption and billing history									
Self serve analytics									
Enhanced IVR									

See attached Excel Spreadsheet for Table



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**Response:**

Please see Attachment 13.1.



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**14.0 Reference: CURRENT CUSTOMER CARE PROGRAM**

**Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec  
3.2.2 Evolution of Customer Service, pp. 40-41  
Changing Customer Expectations – Best in class**

"The Taylor Reach Group report identified six best practices related to the use of electronic media that best in class organizations provide for customers."

As described in the report these include:

- Communication Options
- Single Point of Contact
- Access Choices – 24/7 Service
- Exceptional Service Levels across Channels
- Value Add Applications
- First Contact Resolution

14.1 In the preferred solution proposed in the Application, does the Company plan to provide all six of these best practices to ratepayers?

**Response:**

Yes, the Company does plan to provide all of the best practices noted in the Taylor Reach report related to electronic media to ratepayers.

14.1.1 If not, which ones does the Company propose to provide and why?

**Response:**

Please see the response to BCUC IR 1.14.1.



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- 14.2 What evidence does the Company have to support ratepayer's willingness to bear the cost of providing, best in class, best practices?

**Response:**

Please see the response to BCUC IR 1.11.1.

- 14.3 Could sufficient customer care be provided with less than the full six best practices?

**Response:**

The Company believes however that TGI should provide the highest level of service that can be achieved at a reasonable cost. All of the best practices indicated above are important to our customers and customer preferences change over time. As electronic communications channels continue to evolve in all areas of our lives, so will the expectations of our customers. The Company is expected to keep pace.

- 14.3.1 If yes, which could potentially be eliminated or modified to provide customers with safe, adequate and secure service?

**Response:**

Please refer to the response to BCUC IR 1.14.3. TGI believes that all six areas are required to be provided in order to meet our customers' expectations.

The capability to excel in the six areas noted above is implicit in the technologies included in this application. The degree to which the Company can achieve these best practices is expected to evolve over time in response to changing customer needs and priorities.





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**15.0 Reference: CURRENT CUSTOMER CARE PROGRAM**  
**Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec**  
**3.2.3 Customer Expectations Regarding Customer Service Delivery,**  
**p.42**  
**Changing Customer Expectations - Competition**

"Customer expectations of Terasen Gas are influenced in part by their direct experience with the Company. They are also influenced by experiences with other organizations, including other energy companies, and other industries such as telecommunications, cable and financial services. These customer interactions with other service providers establish what the customer view as acceptable levels of service and billing options."

"In order for customer care delivery at Terasen Gas to meet evolving customer requirements, the Company must ensure that service offerings are comparable and that quality stands in line with or above others"

- 15.1 Given that cable is a luxury goods and natural gas is a necessity, why does the Company consider it appropriate to compare the customer satisfaction services between cable companies and regulated utilities?

**Response:**

Terasen Gas disagrees with the premise of the question that natural gas is a necessity. Heat is a necessity, but natural gas is not. Terasen Gas believes that natural gas is the most efficient energy form for applications such as space and water heating; however, while heating is of critical importance for customers, it can be achieved with other energy sources such as electricity. As outlined on pages 36 and 37 of the Amended Application, the Company's competitive environment is changing. Terasen Gas' competitive position relative to peers and competitors continues to decline, presenting challenges the Company must address in order to retain and attract customers.

The Company firmly believes that it is appropriate to compare its customer services with organizations such as cable companies. As noted on page 8 of Exhibit B-4, Appendix F, Terasen Gas Customer Care Research Focus Group Report, when asked about other companies that they compare Terasen Gas to in the context of evaluating Terasen Gas customer service operations, customers highlight other utilities regulated by the BCUC such as BC Hydro and companies that are regulated by the CRTC such as Shaw and Telus.

Terasen Gas' long-term success in the BC energy market rests in part on the ability to transform its customer service function into a strategic asset, which is best accomplished through insourced Terasen-owned capabilities in core areas.



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- 15.1.1 It would appear that the needs of financial institution customers (with frequent interactions per month) would be significantly greater than those of a regulated gas utility (with interactions about once per month). What leads the Company to believe that customers require, and are willing to pay for, service offerings that are comparable or exceed these other industries?

**Response:**

The Project is expected to reduce the cost of providing customer care services relative to the notional cost of continuing with the current model. As such, customers will be obtaining the benefits associated with the Project without having to be "willing to pay" more for additional functionality and service offerings.

The discussion on page 42 that is found between the two passages quoted above provides context relevant to the question posed. For ease of reference, the passage not quoted from the Amended Application states: "As a result, Terasen Gas must acknowledge and understand other organizations' customer service models, especially where a successful adaptation to market evolution in meeting customer expectations is demonstrated. In many cases, this means that energy utilities such as Terasen Gas must look outside their own industry in order to understand different responses to competitive challenges<sup>1</sup> and to model their activities for the future."

While the specific nature of the inquiries financial institution customers will have of their financial institutions will obviously differ from the needs of our customers in some respects, *in terms of service delivery* customer research and direct feedback indicate that Terasen Gas customers compare Terasen Gas service delivery to other organizations with whom they do business. In that way, these customer interactions with other service providers establish what the customers view as acceptable levels of service and billing options. Please see the response to BCUC IR 1.15.1.

Customers have indicated the types of online or telephone self-service options they expect the Company to offer. Exhibit B-4, Appendix F, Terasen Gas Customer Care Research Focus Group Report, page 16 highlights customer surprise that certain online and telephone self-services are not already available. Exhibit B-4, Appendix G, Terasen Gas Customer Service Enhancements Final Report details on pages 17, 18 and 20 customer expectations for online and automated telephone (IVR) self service transactions.

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<sup>1</sup> Terwilliger, C. & Lu, F. (2004). Getting utility customers to use online services. E-Source. EBiz-F-14.



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While Terasen Gas may not find it appropriate to target satisfaction levels in excess of high satisfaction levels achieved by other industries with potentially different objectives, we believe it is appropriate to understand how Terasen Gas customers view our service offerings compared to organizations that customers compare Terasen Gas to and other organizations that offer similar contact channels, including financial institutions.



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**16.0 Reference: CURRENT CUSTOMER CARE PROGRAM  
Exhibit B-4, Appendix G Angus Reid Customer Service Report, p. 5  
Changing Customer Expectations - Competition**

"Customer experience: Customer satisfaction with IVR and online service at Terasen Gas is generally perceived about the same as BC Hydro based on both experience and perception. Terasen ranks in the middle for customer satisfaction with IVR and online services compared to other utilities and financial institutions. Notably, in terms of IVR and online customer experience, financial institutions rated well above all others in satisfaction"

- 16.1 Given that financial institutions function in a competitive market and the Company and BC Hydro are both monopolies, why does the Company consider it appropriate compare the customer satisfaction with IVR and online services between financial institutions and monopolies?

**Response:**

Terasen Gas is a regulated natural gas monopoly; however, the implicit assumption in the question that Terasen Gas is not subject to competition is not correct. Energy sources exist that can be, and are, used in place of natural gas. The evolving competitive environment is discussed on pages 36-37 of the Amended Application. In that section, the Company observes that the competitive environment is becoming more challenging. As a result of those competitive challenges, excellence in customer care takes on even greater importance. Retaining and attracting customers is in the best interests of existing customers.

As discussed in response to BCUC IR 1.15.1 and 1.15.1.1, TGI customers compare Terasen Gas service delivery to other organizations that they do business with that operate in different industries. We recognize that this impacts customer perceptions of the service they receive from Terasen Gas. The response to BCUC IR 1.15.1.1 discusses why the Company considers it is appropriate to compare customer satisfaction with our IVR and online services with other organizations outside of the energy industry.



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**17.0 Reference: CURRENT CUSTOMER CARE PROGRAM**

**Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec 3.2.3 Customer Expectations Regarding Customer Service Delivery, p.43**

**Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec 3.2.4.1 Customer Information System and Contact Centre Technologies, p. 44**

**Exhibit B-4, Chapter 6 Project Costs, 6.4 Cost of Service and Rate Impact Analysis, p. 113**

**Changing Customer Expectations – Communication Channels**

"In a utilities industry call centre benchmark report published by Benchmark Portal it is noted that "the focus has shifted from a singular point-of-contact via telephone call to multiple points of customer access." (Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec 3.2.3 Customer Expectations Regarding Customer Service Delivery, p.43)

"Today, the Company's service offerings via alternative channels are limited...and do not meet customer expectations." (Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec 3.2.4.1 Customer Information System and Contact Centre Technologies, p. 44)

- 17.1 Provide a list of the communication channels that the Company currently provides to its customers, including the services that each communication channel provides.

**Response:**

Terasen Gas currently offers the following communications channels to customers:

- *Call Centre* – Inbound voice response is provided in support of emergency calls, billing and account inquiries, payment plan inquiries, new service requests and customer moves and collections related calls. (Consolidated billing inquiries, industrial billing inquiries, and inquiries involving changes to more than three premises or accounts are directed to specialist handling groups).



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- *IVR* – Integrated voice response is available through the call centre and supports self serve access to current billing, payment and meter reading date information. It also supports credit card payment processing.
- *E-mail response* –Inbound e-mail is directed to a specialist group for response and manually logged in the current CIS application. Content is archived outside of CIS.
- *Web access* – The Company currently provides customers with access to historical billing, payment and consumption information. The customer can also enter a meter reading, initiate an inquiry or make a credit card payment. The Company also provides static data content related to programs, rates and tariffs, contact information etc.

As discussed in response to BCUC IR 1.11.1, feedback received directly from customers and customer research such as the focus group research conducted by Ipsos Reid (CCE Project Exhibit B-4, Appendix G), provide directional information that Terasen Gas customers expect the Company to bring forward advances in customer care solutions. The quantitative research study conducted by Angus Reid Strategies (CCE Project Exhibit B-4, Appendix H), highlights that the majority of customers expect additional service options to those available today.

- 17.2 Provide a list of additional communication channels that the Company proposes to provide under the preferred solution as proposed in the Application.

**Response:**

The additional channels that the Company proposes to support include:

- Online chat;
- Integrated e-mail support which automatically logs the inquiries and responses within the communications database and tracks the timeliness of the transaction;
- Enhanced IVR, including an option for a scheduled call back in lieu of waiting in the queue;
- Enhanced web self-serve functionality, including, for example, support for online customer moves, access to high bill analytics, and greater access to consumption data.

These channels would be enabled with the implementation of the CCE Project on January 1, 2012.



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- 17.3 Does the SAP software solution as proposed in the Application support all the communication channels required by the Company?

**Response:**

Yes, the SAP system supports all of the communication channels required by the Company.

The SAP system will be the data repository for customer related information and will support the automatic logging of all customer interaction through the planned integration with the call centre technology suite. It will also provide the data requirements and transactions for web self serve.

- 17.3.1 In order to activate the functionality required to provide the proposed communication channels would there be any additional costs to the Company other than those included in the 'Cost of Service and Rate Impact Analysis' in Section 6.4 of the Application?

**Response:**

In order to activate the functionality required to provide the proposed communication channels there would be no additional costs to those identified in Section 6.4 of this Application. To the degree that these channels require enhancement or configuration over time to expand on the tools required by customers to meet changing customer expectations or increased self serve functions, additional costs may be required. Any additional future enhancements would be subject to the Company's standard business case and approval processes.



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**18.0 Reference: CURRENT CUSTOMER CARE PROGRAM**  
**Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec**  
**3.1.1 Evolving Policy Environment, pp. 35-36**  
**Changing Customer Expectations – new initiatives**

"The 2007 Energy Plan sets out a strategy for making the province energy self-sufficient and reducing carbon emissions. The new emphasis on climate change presents both obligations and opportunities for Terasen Gas to be a leader in assisting our customers to address these challenges. The Plan cites conservation, energy efficiency, and clean energy as key elements to help realize these objectives."

"Terasen Gas intends to implement a number of new initiatives that are aimed at providing customers with a range of energy solutions that are consistent with evolving government policy and public perception."

18.1 Please provide a list of specific new initiatives that the Company intends to provide to its customers including those addressed in the 2007 Energy Plan.

**Response:**

This response addresses two main topics: Energy Efficiency and Conservation initiatives and alternative energy solutions. These initiatives are consistent with the Energy Plan.

In April 2009, the Commission issued Decision G-36-09, approving the Terasen Utilities' Energy Efficiency and Conservation ("EEC") Application. There are a number of new EEC initiatives that the Company will offer to its customers as a result of the Decision. At the time of writing, these initiatives are under development, therefore detailed information cannot be provided, however, at a high level, the list below outlines some of the potential EEC programs the Company is currently exploring:

- Residential:
  - Efficient Domestic Hot Water
  - Super Efficient Hot Water Appliances (Dishwashers and Washing Machines)
- Commercial:
  - Efficient Domestic Hot Water
  - Efficient Process Heat





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- Building Re-commissioning
- Next Generation Building Automation Systems
- Custom Programs
- Affordable Housing:
  - Partnership with BC Hydro
  - Trades Training and Energy Efficiency Certification Program
  - Direct-install furnace replacements (pilot)
- Conservation Education and Outreach:
  - School programs
  - Affordable Housing
  - Trades Training and Energy Efficiency Certification Program
- Qualified Dealer:
  - Expansion of a modified Qualified Dealer program to the Company's entire service territory

The Company is also expanding its energy offerings to include alternative energy delivery, including NGV compression systems, district energy systems ("DES"), geo-exchange systems and solar thermal hot water systems. These initiatives will augment the Company's core business. TGI and TGVI have, through their respective RRA proceedings, sought approval for increased O&M, economic models, streamlined regulatory processes and deferral accounts to facilitate the Company's initiative to offer alternative energy solutions. All of these new customer offerings will help meet objectives of the Energy Plan by reducing GHG emissions in the Province and encouraging energy consumers to use the right fuel, for the right activity at the right time. The Energy Plan provides, for instance:

*"It is important for British Columbians to understand the appropriate uses of different forms of energy and utilize the right fuel, for the right activity at the right time. There is the potential to promote energy efficiency and alternative energy supplemented by*



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*natural gas. Combinations of alternative energy sources with natural gas include solar thermal and geothermal. Working with municipalities, utilities and other stakeholders the provincial government will promote energy efficiency and alternative energy systems, such as solar thermal and geothermal throughout the province."*

TGI considers this passage, among others in the Energy Plan, to be an endorsement of the initiatives being proposed by the Company, and that will be facilitated by the Project.

- 18.1.1 Can the new initiatives that the Company intends to provide be supported by an upgraded version of the current PEACE CIS software or is new CIS software, as proposed in the Application, required to support these new initiatives?

**Response:**

Terasen Gas does not believe that the new initiatives would be supported by the current Peace CIS in a comprehensive and cost effective manner. Please refer to the response to BCUC IR 1.37.1 for additional details relating to TGI's view of the current Peace CIS software and its ability to meet new requirements. A new CIS, including support for Customer Relationship Management<sup>2</sup>, is required in the future.

- 18.1.2 If new CIS software is required, please provide a list of the specific functionality that an upgraded version of the current system is lacking in order to provide these new initiatives.

**Response:**

Please refer to BCUC IR 1.37.2.

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<sup>2</sup> **Customer relationship management (CRM)** consists of the functionality to capture and evaluate customer and premise data for the purposes for evaluating and developing new programs, tracking customer interest and participation and reporting results.



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- 18.2 Does the proposed SAP CIS software have the functionality to provide these new initiatives?

**Response:**

Yes, the proposed SAP CIS has the functionality to provide these new initiatives. Terasen Gas does not anticipate any additional costs to the Company to take advantage of this functionality other than those included in Section 6.4 of the Amended Application, based on the information we have today related to these initiatives. The SAP application is highly configurable and new data fields, for example, can be configured on site should this be required.

- 18.2.1 In order to activate the functionality required to provide the proposed new initiatives would there be any additional costs to the Company other than those included in the 'Cost of Service and Rate Impact Analysis' in Section 6.4 of the Application?

**Response:**

Please see the response to BCUC IR 1.18.2.



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**19.0 Reference: CURRENT CUSTOMER CARE PROGRAM**  
**Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec**  
**3.1.3 The Project Will Help Respond to the Evolving Business**  
**Environment, p. 37**  
**Changing Customer Expectations – Energy use and consumption**

"The changes in Terasen Gas's business environment outlined above has had a direct effect on our customer care function and given rise to specific requirements such as: [...]"

- The ability, from the perspective of both billing/tracking technology and qualified human resources, to provide customers with more information regarding their **energy use** and actions they can take to **change their consumption.**"

19.1 What information is currently available to customers regarding their energy use?

**Response:**

The information currently available to customers regarding their energy use is limited to billed historical consumption. General energy efficiency information is also available on the website related to gas appliances, although customer specific appliance information is not supported.

19.2 What tools are currently available to customers that can assist them in modifying their consumption?

**Response:**

Currently there are no specific tools available.

Raw data is currently available to customers to support decisions to modify their consumption, including billed consumption as an input as well as static conservation and energy reduction tips. This information is available through the call centre or via the web. Specific analytical tools other than the ability to download billed consumption in excel format are not supported. The data also does not provide other facts to support the analysis such as weather or degree day information.



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- 19.3 Can the new energy use/consumption initiatives that the Company intends to provide be supported by an upgraded version of the current PEACE CIS software or is new CIS software, as proposed in the Application, required to support these new initiatives?

**Response:**

To the best of Terasen Gas' knowledge the new energy use / consumption initiatives the Company intends to provide cannot be supported cost effectively through the current Peace CIS without significant redevelopment or customization. It is the Company's belief that significant development would be required at an undefined cost and with the inherent risk associated with new development. TGI believes that a new commercial off the shelf CIS which includes these capabilities as existing functionality is a better investment for customers.

- 19.3.1 If new CIS software is required, please provide a list of the specific functionality that an upgraded version of the current system is lacking in order to provide these new initiatives.

**Response:**

Please refer to BCUC IR 1.20.1.

- 19.4 Will the new SAP software solution as outlined in the Application be able to provide customers with additional information regarding their current consumption and actions they can take to change their consumption, and if so what would it consist of?

**Response:**

Yes, the new CIS will have the capabilities to provide customers with additional information regarding their current consumption and actions they can take. This will be supported through the capture of more discrete premise and appliance information as well as usage analytics that can be configured through the CIS application.

Once implemented, additional customer and premise data will be actively captured. As well, the new CIS will have the ability to apply analytics to more discrete meter reading information as it becomes available and will be able to profile usage against other factors including appliance



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changes or upgrades, implementation of efficiency improvements at the premise, and variances in weather patterns from year to year.

- 19.4.1 In order to activate the functionality required to provide customers with information regarding their consumption would there be any additional costs to the Company other than those included in the 'Cost of Service and Rate Impact Analysis' in Section 6.4 of the Application?

**Response:**

No additional costs are required to activate the functionality.



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**20.0 Reference: CURRENT CUSTOMER CARE PROGRAM**  
**Exhibit B-4, Chapter 3 Project Justification, Sec. 3.44 Future**  
**Customer Care Requirements, p. 38**  
**Changing Customer Needs**

"While these examples have already been implemented, we anticipate future additional billing and reporting change in support of the policy direction such as the implementation of new Energy Efficiency and Conservation programs. Terasen Gas is also expecting the evolution and expansion of Customer Choice to currently non-qualifying service areas. These changes will be more effectively addressed with the new CIS."

20.1 Please list and discuss the anticipated billing and reporting change in support of the policy direction such as the implementation of new Energy Efficiency and Conservation programs

**Response:**

The new Energy Efficiency and Conservation programs are in the process of being developed. Therefore, at this time, specific impacts to billing and reporting changes have not been identified, although some are anticipated to be necessary.

The new SAP CIS includes:

- Robust program management and reporting capabilities as well as participation logging
- Through configuration the ability to bill for an unlimited range of programs, products and services
- Ability to track and report the results of these programs
- Ability to capture customer preference and premise appliance information including specific appliance characteristics to support programs participation.

As a key component of the CCE Project, the SAP CIS will be key to supporting the changes required to support new programs efficiently and cost effectively.

20.1.1 How will the cost of the anticipated billing and reporting change be allocated to the new programs specifically targeting Energy Efficiency and Conservation?



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**Response:**

The base application will support the known high level requirements as noted in the response to BCUC IR 1.20.1. There are no requirements that have been included specifically to support Energy Efficiency and Conservation programs, although there is base functionality that may be used. We do not anticipate additional costs to support these programs although if additional functionality beyond the base is required those costs would be funded through the Energy Efficiency and Conservation programs.

20.2 Please discuss the expansion of Customer Choice to currently non-qualifying service areas which will result in additional changes to the CIS.

**Response:**

Terasen Gas anticipates that Customer Choice may be expanded in the future to currently non-qualifying service areas. A number of prerequisite steps will be required including:

- Rate re-structuring to clearly differentiate the commodity component,
- Adequate customer education to ensure customers understand the value and conditions of the program, and
- Gas supply considerations related to delivery and forecasting.

The new SAP CIS system will support the expansion of the program via configuration (e.g. new billing structure). Additional costs may be required depending on the possible need to convert historical data as per prior Customer Choice deployments. This solution will avoid the costs and complications inherent in the current multi-system design.





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**21.0 Reference: CURRENT CUSTOMER CARE PROGRAM**  
**Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec**  
**3.1.2 Evolving Competitive Environment, pp. 37**  
**Changing Customer Expectations - Metering**

"An additional challenge Terasen Gas anticipates in the future occurs as a result of Provincial government policy regarding advanced metering, discussed earlier. BC Hydro is expected to move toward a fully functional smart metering solution by the end of 2012, which at this point does not accommodate support for a parallel gas read through the same infrastructure. Terasen Gas expects to be faced with the challenge of a stand-alone manual natural gas read as BC Hydro moves away from the joint manual read that is in place today."

21.1 Does the new SAP software as proposed support a stand-alone manual gas read?

**Response:**

Yes, the SAP CIS system will support the input of meter reading data from any origin, including manual reads, for the purposes of calculating consumption and billing information. It will also have the functionality to provide reporting on customer gas usage. The details of exactly how Terasen Gas will implement this functionality will be a result of the project's detailed design or "blueprint" phase.

21.2 Does the new SAP software as proposed support Smart Meters?

**Response:**

As stated in the response to BCUC IR 1.21.1, the SAP CIS can support input of meter reading information from multiple sources, one of which is Smart Meters. It should be noted however, that depending on the requirements associated with what is ultimately decided as the appropriate automated meter reading solution for Terasen Gas, additional software may be required to meet those specific requirements. This will be determined through the business casing process for an automated meter reading solution for Terasen Gas. Any additional costs would be the responsibility of the automated meter reading business case. Terasen Gas is confident that the new SAP software as proposed will support Smart Meters although additional software not required specifically for a CIS may be required. It should be noted that BC Hydro runs SAP's CIS.



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- 21.3 Does the current Pease software or an upgraded version have the ability to support a stand-alone manual gas read or Smart Meters? If not, please explain.

**Response:**

The current Pease CIS could support a standalone manual gas read today. Terasen Gas is not aware of any advancement in functionality related to smart metering for a gas distribution installation that would be available today.



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## CIS SOFTWARE ALTERNATIVES

### 22.0 Reference: CIS SOFTWARE ALTERNATIVES

**Exhibit B-4, Chapter 2 Project Description and Schedule, Sec 2.3.1.1.2 Terasen Gas' Preferred CIS Solution, p. 19**

**Exhibit B-4, Appendix O, Gartner CIS Magic Quadrant – June 15, 2009**

#### **Insourcing Alternative – SAP CIS**

On page 19 of the Application: "CIS Software: For the Terasen Gas CIS software solution, the Industry Solution for Utilities – Customer Relationship & Billing (IS-U/RC&B) product from SAP will be implemented."

The Gartner report states on page 5 "in addition to appending a market interface, the solution will also require a bolt-on CRM product (such as SAP CRM in the case of the SAP CCS/ISU product"

- 22.1 Does the proposed implementation require an upgrade or other modification the SAP CRM installed at the Company? If so, have these costs been included in the financial analysis. Please reference the appropriate line(s) in the confidential spreadsheet.

#### **Response:**

Terasen Gas has just recently concluded the upgrade of its SAP platform to version ECC 6.0 as a separate initiative to the CIS project as the previous version was approaching the end of its published support timeframe. Terasen Gas currently does not have the SAP CRM module installed. The SAP CIS solution proposed by Terasen Gas is comprised of several modules and licenses<sup>3</sup> but for the ease of description in the Application, the entire solution is described as "Industry Solution for Utilities – Customer Relationship & Billing (IS-U/RC&B)".

The costs associated with the acquisition of the SAP CRM module are included in the financial analysis. The acquisition costs are reflected on line 123 of confidential Appendix X – 2 – CCE Project – Detailed Project Costs 280809.xls. The implementation costs associated with this module are included in the consulting costs reflected in lines 64 and 68 on the same spreadsheet.

<sup>3</sup> The modules comprising the SAP CIS solution proposed by Terasen Gas include: SAP Customer Relationship & Billing for Utilities, SAP Energy Data Management for Utilities, SAP Collaborative Services Management for Utilities, SAP Customer Financial Management for Utilities and SAP BusinessObjects BI Package. The licensing for individual users are licensed as "mySAP Enterprise Resource Plan (mySAP ERP)"



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**23.0 Reference: CIS SOFTWARE ALTERNATIVES**  
**Exhibit B-4, Chapter 2 Project Description and Schedule, Sec**  
**2.3.1.1.2 Terasen**  
**Gas' Preferred CIS Solution, p. 19**  
**Insourcing Alternative – SAP CIS**

"Finally, Terasen Gas factored in the ongoing operating cost of the solution, not just the ongoing licensing fees of the software, to determine that the preferred CIS solution represents the optimum balance between system requirements, providing a solid foundation for any future requirements and cost."

- 23.1 Please comment on the Company's practice with respect to implementation of IT system upgrades and new releases, in general and specifically with respect to the CIS system currently utilized and proposed to be utilized.

**Response:**

Terasen Gas' business practice is to ensure that all key software employed and managed by the Company is maintained and fully supported. To that end, Terasen Gas ensures that all key software is upgraded to a version that is supported by the vendor. Depending on the vendor, the support offered from the vendor for a particular version of software can be anywhere from 3 to 10 years (or longer). Periodically, vendors will provide maintenance fixes, known as "service packs" or "patches", which are implemented to address known deficiencies or security updates. Terasen Gas incorporates these patches as part of its normal day-to-day maintenance procedures. Terasen Gas also refreshes the server hardware every 5 years as part of its regular hardware maintenance regimen.

Although vendors will support versions of software for the timeframes as outlined above, they will release newer versions of the software on a more frequent basis. Typically, these new releases will introduce new functionality or improvements to existing functionality. Terasen Gas does not implement new releases except under two conditions:

(i) ongoing support is jeopardized or (ii) a business case can be made to implement the new functionality. In the case of a business unit determining it requires the new functionality, the business unit will complete a business case and that business case will follow the Company's capital approval process.

Specifically for the CIS system currently utilized, Terasen Gas has a results-based services agreement with CWLP and therefore does not manage the day-to-day maintenance practices of the service provider. The service provider completed an upgrade of the Peace system from version 6.4 to version 8.04 in October 2008. The current version of Peace is 8.09.



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For the proposed CIS solution, Terasen Gas intends to follow the processes as outlined in paragraphs 1 and 2 above. This approach will ensure that the Company's CIS will be adequately maintained, and that the cost of upgrading is only incurred when it is appropriate to do so.

- 23.2 Please reference the appropriate lines in the confidential spreadsheet containing the cost of such upgrades and their amortization.

**Response:**

The Company has assumed that technical upgrades to the SAP based CIS solution will be required on average every eight years and estimated that the cost of these upgrades will be \$450,000. Because the vast majority of the SAP based CIS will reside on the existing SAP platform, a significant amount of the technical work in the upgrade would take place regardless during a technical upgrade so there is a significantly reduced cost as opposed to a separate system. Terasen Gas has estimated the incremental effort to accommodate the new CRM component and the additional software (bill composition, archiving) to be the amount shown above based on experience with previous upgrades. It assumes a typical technical upgrade with no additional functionality introduced at the same time. The cost of these upgrades is found in the Inputs tab on row 195 of confidential Spreadsheet 1, the Financial Model. The amortization of this cost is found on rows 75, 342, and 609 of the CIS\_GPIS\_CCA tab of the same spreadsheet.



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**24.0 Reference: CIS SOFTWARE ALTERNATIVES**  
**Exhibit B-4, Chapter 2 Project Description and Schedule, Sec**  
**2.3.1.2.1.1 System**  
**Integrator, p. 20**  
**Insourcing Alternative – SAP CIS**

"The System Integrator is a company that specializes in building complete computer systems by putting together components from different vendors. ... The SI's experience in implementing the software is critical to the success of the Project."

- 24.1 What is the HCL Axon track record with respect to meeting project deliverables, including meeting the total project budget implementation cost? The risk assessment in Table 2.5 on page 31 references a fixed price for HCL Axon; are there provisions for increases to their fixed price?

**Response:**

HCL Axon has a very strong track record of implementing on time and on budget with requested functionality. In the last three years, HCL Axon has completed 10 CIS implementations and all have come in on budget. Only one project did not meet the project deadline and that was due to complications on implementing customer-specific retail and financing functionality that is not applicable for Terasen Gas. Terasen Gas is confident it has chosen a strong partner for its CIS initiative. HCL Axon has proposed an experienced team and a proven methodology supported by a set of tools which, combined with Terasen Gas' experience with SAP implementations, will facilitate the successful implementation of Terasen Gas' proposed CIS solution.

The HCL Axon fixed bid proposal is based on all of the requirements required by TGI and the proposed project plan. HCL Axon is bound by its fixed price in respect of the specified scope of work. During the course of the project, Terasen Gas may decide upon changes that were not part of the original proposal. To accommodate this possibility, the project will follow a strict scope change control process to determine if the value of the change justifies any additional cost that may be incurred as a result of incorporating the requested change (either higher or lower). A contingency fund has been incorporated into the project budget for the purposes of providing for potential approved scope changes as well as any other unforeseen consulting requirements. This contingency fund is 9.9% of the CIS implementation consulting budget and is to address all third party consulting services, not just HCL Axon's services.



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- 24.2 Has the Company or its affiliates utilized HCL Axon previously? If so, were there post-implementation recommendations proposed for future projects?

**Response:**

FortisAlberta has utilized HCL Axon previously (although at the time the company was known as Axon Solution Inc). HCL Axon provided FortisAlberta with technical and functional consultants to augment FortisAlberta's existing staff. Although FortisAlberta did not have HCL Axon lead a major initiative, the resources provided by HCL Axon were described as "very good and completed key compliance development work. FortisAlberta would have no problem working with them again". As well as the experience with FortisAlberta, the Company also did reference checks into HCL Axon CIS implementations at TXU, Aquarion Water and Mobile Gas. Terasen Gas did some additional reference checks into other CIS implementations, most notably the recently completed SAP CIS implementation at Enmax. The favourable responses from HCL Axon's other customers, combined with HCL Axon's track record as referenced in BCUC IR 1.24.1, gives Terasen Gas the confidence it has chosen a strong partner in its SAP CIS implementation.

For further details on how HCL Axon incorporates lessons learned in previous projects into their methodology, please refer to Confidential Exhibit B-3, Attachment VI, Capturing Lessons Learned pp 63-64.



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**25.0 Reference: CIS SOFTWARE ALTERNATIVES**  
**Exhibit B-4, Chapter 2 Project Description and Schedule, Sec**  
**2.3.1.2.1.3 Vendor**  
**Involvement in Implementation, p. 21**  
**Insourcing Alternative – SAP CIS**

"Terasen also intends to utilize resources from SAP consulting and global support in a quality assurance role throughout the Project to take advantage of their expertise and experience in supporting customers post go-live. ... SAP will also provide additional expertise in how to optimize the SAP solution during various phases of the Project."

25.1 What is the structure for the quality assurance ("QA") role in this project? Who else is part of the QA process?

**Response:**

Quality Assurance is built into each phase of the Project. There are formal sign-offs by both the business owners as well as the technical implementers for the functional and technical specifications coming out of the design phase as well as all test results through the ensuing phases. As an additional QA oversight, Terasen Gas will engage SAP Active Global Services and SAP Consulting Services to conduct periodic reviews at various stages of the Project. These reviews will focus on three main areas: technical reviews, functional reviews, and specific focus on the integration of Customer Relationship Management with the rest of the utility solution, with particular attention to the user interface.

In addition to the formal SAP oversight, Terasen Gas is intending to take advantage of the lessons learned from others throughout the project. Terasen Gas has received an offer from Enmax to also periodically review the Terasen Gas project at key milestones. With Enmax having successfully implemented the SAP CIS solution earlier this year, Terasen Gas feels that Enmax's practical experience will also provide valuable insights throughout the project.

For details on the how HCL Axon approach QA in their methodology, please refer to Confidential Exhibit B-3, Attachment VI, Quality Assurance pp 127 – 129.





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- 25.2 How does the SAP expertise during the various phases of the project fit with the HCL Axon work? Who is the overall project management?

**Response:**

Overall project management of the CIS solution is the responsibility of HCL Axon. The SAP expertise will be complimentary to the HCL Axon and Terasen Gas resources by providing additional insights into how the SAP solution is being implemented, both functionally and technically, from an ongoing support point of view. With Active Global Services, SAP is in the unique position to see what other utilities have implemented, both good and bad, from an ongoing support point of view, and will bring these insights to the Terasen Gas project. HCL Axon and SAP have successfully worked in this fashion in the past and both companies consider it of value, as does Terasen Gas.

- 25.3 Is there a potential conflict with SAP providing both QA and solution expertise?

**Response:**

No, Terasen Gas does not believe that there is a potential conflict with SAP providing both QA and solution expertise.

The goal of the project team is to ensure that the solution implemented at Terasen Gas meets all of the requirements as identified by Terasen Gas. As explained in the response to BCUC IR 1.25.2, HCL Axon has overall responsibility for the implementation of the CIS. SAP is providing valuable support.

The QA team's role is to review the design, the technical landscape and testing plans of the overall solution. The QA role provided by Active Global Services, SAP's global support team, will provide valuable insight into how the requirements are being met, with a focus on ensuring that the manner in which the requirements are met represents the best balance of meeting the goals of the project and mitigating the risk of a potential longer-term support issue for Terasen Gas post go-live.

Given that Active Global Services will be responsible for supporting Terasen Gas post go-live (as part of Terasen's ongoing licensing fee to SAP), they have a vested interest in ensuring that the application is stable and supportable longer term, a goal that is common with that of the project team. It is a fairly common practice for SAP to provide support for both roles as both are bringing specific application expertise to the project, one from an implementation standpoint and one focused on the ongoing sustainability of the implemented solution.



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**26.0 Reference: CIS SOFTWARE ALTERNATIVES**  
**Exhibit B-4, Chapter 2 Project Description and Schedule, Sec**  
**2.3.1.2.1.4**  
**Terasen Gas Resources Required For Implementation, p. 21**  
**Insourcing Alternative – SAP CIS**

"Terasen Gas intends to hire an additional 7 functional analysts and 3 technical resources to supplement the Project staffing provided by the system integrator. It is the intent of Terasen Gas that these 10 supplemental staff will transition to ongoing CIS maintenance once the Project is completed."

26.1 Please expand on the current internal IT staff support, and identify the number currently supporting SAP systems.

**Response:**

The current number of IT staff support is 57. The group currently supporting the current SAP platform<sup>4</sup> and the other applications that are tightly integrated into SAP (i.e. field workforce scheduling, field mobile solution) numbers 23.

26.2 Will the SAP CIS be the most support intensive Company IT application? What percentage of internal IT support will it require?

**Response:**

SAP CIS will be the most support intensive IT application at Terasen Gas. Based on the assumption that the incremental FTEs for IT (which excludes 10 supplemental staff) as proposed through the TGI Revenue Requirement Application are approved, the incremental 10 internal support staff for the SAP CIS will represent 14% of the overall internal IT support at that time. Please see the response to BCUC IR 1.26.3 for further explanation of the role played by the 10 FTEs. The level of support contemplated will ensure that this core technology platform is properly maintained.

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<sup>4</sup> The current SAP platform consists of Financials – both external reporting and internal costing, project systems, procurement, A/P, materials management, work management, preventive maintenance, meter management, HR, payroll, time management, learning management, business intelligence, and technical support.



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- 26.3 Please confirm the ten FTE (Full Time Equivalents) referenced in Section 2.3.1.2.1.4 are the same ten FTE referenced in Section 2.3.1.2.2. Please provide the basis for determining that ten incremental FTE is the most appropriate amount.

**Response:**

The ten FTEs referenced in Sections 2.3.1.2.1.4 and 2.3.1.2.2 are the same resources. In determining the number of incremental FTEs required to support the proposed SAP CIS, Terasen Gas:

- reviewed the functional support requirements,
- identified where possible opportunities existed to leverage existing SAP support FTEs as backups for the primary identified resources, and
- had discussions with other utilities as to their support experiences.

Terasen Gas considers that the 3 technical resources identified will be sufficient in supporting the incremental development and reporting requirements as well as the technical landscape supported by the existing SAP technical support team. The 7 functional analysts will provide the primary support for the key areas of the SAP CIS solution (customer service, billing, meter integration, customer choice, financial and contract management) supported by the existing support staff for financials, field workforce management and meter management. As indicated in the response to BCUC IR 1.26.2, the level of support contemplated will ensure that this core technology platform is properly maintained.

- 26.4 What is the projected number of support staff during the first five years, and is this cost included in the projected O&M costs?

**Response:**

The IT support staff for the first five years after the Project is implemented starting 2012 are the 10 supplemental staff described in the reference. The labour cost for this support staff is included as part of the O&M cost of the new customer care function for this period. Please refer to confidential spreadsheet 3 (2012 O-M Costs), rows 25 to 34 on the O&M 2012+ tab for details.



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## **27.0 Reference: CIS SOFTWARE ALTERNATIVES**

**Exhibit B-4, Chapter 3 Project Justification, Sec 3.1.1 Evolving Policy Environment, p. 35**

**Exhibit B-4, Chapter 3 Project Justification, Sec 3.1.2 Evolving Competitive Environment, p.37**

### **Insourcing Alternative – SAP CIS**

"It also contemplates that the use of advanced metering offers the potential for providing consumption information to consumers so that they are placed in a better position to conserve energy and make decisions concerning energy efficiency alternatives." (Exhibit B-4, Chapter 3 Project Justification, Sec 3.1.1 Evolving Policy Environment, p. 35)

"BC Hydro is expected to move toward a fully functional smart metering solution by the end of 2012, which at this point does not accommodate support for a parallel gas read through the same infrastructure. Terasen Gas expects to be faced with the challenge of a stand-alone manual natural gas read as BC Hydro moves away from the joint manual read that is in place today." (Exhibit B-4, Chapter 3 Project Justification, Sec 3.1.2 Evolving Competitive Environment, p.37)

27.1 What analysis has management done to ensure that the SAP platform proposed by the Company will support the most effective and efficient Advanced Metering option when the time comes to make the change.

### **Response:**

The SAP platform has been identified as one of two market leaders in Utility Customer Information Systems by Gartner, a leading independent research firm. With over 600 utility customers worldwide (including BC Hydro), SAP continues to keep abreast of the industry trends and provides significant investment in its product suite to meet those trends. According to SAP, the R&D investment in their suite of products is \$1.5 billion annually. The amount invested specifically in the Utility solution fluctuates from year to year but averages between 8% - 10% (i.e. \$120 - \$150 million annually) with investments in Advanced Meter Infrastructure being one of the highest priorities. However, at this time Terasen Gas has not chosen any Advanced Metering solution so it is impossible to determine if all of the requirements can be met given the requirements are not yet defined at the level of detail required. Please refer to the response to BCUC IR 1.21.2 for further discussion on SAP and automated meter reading solutions.



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**28.0 Reference: CIS SOFTWARE ALTERNATIVES**  
**Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec 3.1.3.1**  
**Customer Information System, p. 38, par. 4**  
**Insourcing Alternative – SAP CIS**

"Terasen Gas is also intending to provide integrated alternative energy solutions including biogas, solar, thermal, geo-exchange and district energy systems. Through implementing the new CIS with the broad capabilities that are included in its basic functionality, and creating an internal customer care delivery organization, this Project will position Terasen Gas to best respond and adapt in a timely and cost-effective manner as additional initiatives are undertaken."

- 28.1 Should the Company receive approval for alternative energy solutions; will the Company be unable to adequately provide service to customers until the proposed CIS is operational in 2012?

**Response:**

Terasen Gas believes it will be able to provide adequate support for customers entering into service agreements with TGI for the provision of alternative energy solutions. In cases where the existing CIS cannot support the business processes the Company will look for manual solutions in lieu of funding costly enhancements to the existing CIS. The cost of providing these work-arounds, which are not anticipated to be substantial, will be borne by the customers who choose to participate in alternative energy solutions and would be factored into the economic tests being proposed in the concurrent Revenue Requirements Applications.

- 28.2 What will be the additional cost to provide service to potential alternative energy customers? If this has been identified in the project costs, please identify the specific line(s) in the confidential spreadsheet.

**Response:**

Terasen Gas believes the core SAP CIS application can be configured to support alternative energy solutions without the need for custom development. The functionality that has been identified to date is included in the base product. There are no additional costs anticipated at this time.



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## 29.0 Reference: CIS SOFTWARE ALTERNATIVES

**Exhibit B-4, Chapter 4 Analysis and Alternatives, Sec 4.1.3.3  
Alternative #2 –  
SAP, p. 63**

**Exhibit B-4, Appendix O, Gartner CIS Magic Quadrant – June 15,  
2009**

### **Insourcing Alternative – SAP CIS**

The report states on page 16 the following cautions for the SAP CIS system:

- Even though SAP has attracted a substantial number of implementation partners, the large numbers of concurrent implementations can put a strain on the SAP utility organization's ability to get close involvement and oversight of the implementation project, which can cause project budget overruns.
- SAP's utility Industry Value Network (IVN), which was announced in 2007, appears to be focused primarily on more-narrow initiatives, such as the AMI Lighthouse Council.
- Legacy SAP CIS call center users have expressed concern about product usability, which can negatively affect call center productivity — particularly call-handling time. SAP offers CRM as a means to mitigate IS-U/CR&B call center usability concerns.
- SAP CCS users often find access to technical support (both implementation and post implementation services) challenging.

29.1 What has the Company done to address these cautions and what strategies are in place in order to mitigate their potential negative implications?

### **Response:**

Overall, the Gartner report is very favourable on SAP, recognizing SAP as the industry leader for both completeness of vision and ability to execute for Utility CIS products. SAP first reached leadership status in 2003 and has remained an industry leader since.

Terasen Gas is aware of the limited number of cautions cited in the Gartner report and has taken the following steps to mitigate their potential negative implications:

- SAP has been involved from the beginning of Terasen Gas' CIS review process since the initial product RFP in 2008 and the implementation timeline has been known for over a year.



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- Terasen Gas has the commitment from SAP to provide project resources as well as the QA resources for the SAP CIS project and the key resources have been named. Terasen Gas has a long standing relationship with SAP and is one of the largest SAP customers in Canada as measured by number of modules implemented. TGI is therefore confident that SAP will provide all necessary support for its SAP CIS project.
- The Industry Value Network mentioned in the report is a program initiated by SAP focused on bringing together industry-leading customers, independent software vendors, system integrators, technology vendors, and SAP to form a network of groups focused on fulfilling top-priority, high-value business and technology needs of specific industries. While the caution may suggest that the focus is narrow, it is a program that is gaining momentum and is bringing value to SAP customers. One of the positive outcomes that Terasen Gas has seen coming out of this program is the co-development agreement between SAP and Terasen Gas' mobile solution provider, Syclo LLP. This mobile solution supports Terasen Gas' field workforce management processes and the agreement between SAP & Syclo strengthens the integration of the two products to the benefit of Terasen Gas and its customers.
- Terasen Gas is also aware of the concerns around legacy SAP CIS usability in the call centres. As stated in the caution, CRM is SAP's response and commitment to meet these concerns. Terasen Gas conducted reference checks and in the case of Enmax, a site visit, to see how the new CRM was being viewed by end users. The feedback from Enmax was that the new CRM meets the usability challenges of the legacy SAP CIS. More recently, Enbridge has just gone live with an SAP CIS solution and the feedback from that project is also very positive.
- Terasen Gas has engaged an experienced implementation partner in HCL Axon and has the commitment of SAP resources from SAP. TGI's ongoing support strategy for SAP is to become self-sufficient and the proposed SAP CIS is resourced with that outcome in mind. Terasen Gas has always managed to obtain the support it requires for its SAP applications either with its own resources, through the substantial SAP partner network, the numerous SAP resource placement companies, or with SAP directly. Terasen Gas expects that its experience with the SAP CIS will be similar.

Overall, TGI considers the SAP product to be a strong product and believes that the limited number of issues identified by Gartner have been taken into consideration and can be appropriately managed.



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**30.0 Reference: CIS SOFTWARE ALTERNATIVES**  
**Exhibit B-4, Chapter 4 Analysis and Alternatives, Sec 4.5.2.1**  
**Functional**  
**Benefits, p. 97**  
**Insourcing Alternative – SAP CIS**

"Table 4.3: SAP Functional Benefits

Premise: Ability to capture end use details including load information, appliance details and program participation"

- 30.1 Please explain more on this benefit, specifically will it allow customer information to be used for load analysis? How does this differ from the Terasen Whistler appliance conversion data that was not available for analysis due to privacy legislation.

**Response:**

The CIS program will provide Terasen Gas with increased capacity to both collect and analyze certain customer information for the benefit of Terasen Gas' customers. Information such as end use details, including load information, appliance details and program participation is currently available to Terasen Gas through customer communications with call centre agents; however, the current CIS system does not have the required functionality to store the information, or generate reports to analyze the data.

The implementation of SAP will allow for the capture of detailed premise and appliance information in the system. The value in capturing this information is that it provides the ability to analyze customer usage related to the specific appliances at the premise and supports customer decision making related to energy conservation and appliance efficiency. It will also provide call centre staff with better information in resolving consumption and high bill inquiries.

We are unclear on the Commission's second question as we have not been able to find a reference in our filings with the Commission for the Whistler Conversion Project in relation to privacy. We offer the explanation below in an attempt to provide further clarity.

Terasen Gas collects and uses customer personal information in accordance with its Privacy Policy. The same Privacy Policy applies to all of the Utilities. For example, this Policy allows us to collect customer personal information to provide personalized service. And as another example, it allows Terasen Gas to collect personal information regarding use of Terasen Gas' services and products in order to understand how to improve them. The full text of the Privacy Policy is available on Terasen Gas' website.

We therefore believe that our Privacy Policy already authorizes us to collect, store and analyze customer information using the enhanced capabilities that the new CIS program will





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provide. The purposes for which we are authorized to collect the information, i.e., to provide better customer service, match the purposes for which we propose to use enhanced capabilities of the new program.

With respect to the Whistler Conversion Project, we needed to collect customer personal information which we did not already have in our system as the existing CIS does not have the functionality to store customer appliance information. For example, we needed to collect the number and type of appliances that would be converted and information on how to access customer premises e.g. who has the key to an individual customer's premises. This information was collected, used and stored in accordance with our Privacy Policy.



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**31.0 Reference: CIS SOFTWARE ALTERNATIVES**  
**Exhibit B-4, Chapter 6 Project Cost, Sec 6.1 Updated Information**  
**from the June 2, 2009 Application**  
**Insourcing Alternative – SAP CIS**

- 31.1 Are there any costs to be incurred in the cancellation of services under the CWLP contract, such as un-depreciated assets, as well as for the transition of services to the Company? Are these included in the project costs of this Application? If yes, please identify.

**Response:**

Please see the responses to BCUC IR 1.7.5 and BCUC IR 1.7.5.1.



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**32.0 Reference: CIS SOFTWARE ALTERNATIVES**  
**Exhibit B-4, Appendix C Selection Process for CIS and System**  
**Integrator, p. 3**  
**Insourcing Alternative – SAP CIS**

- 32.1 Please identify any functionality of Priority 3 or 4 that have been included in the planned build, and explain the costs and benefits.

**Response:**

None of the functionality listed as Priority 3 or 4 has been included in the planned build. Priority 3 was defined as possible future need. It is the Company's belief that most of this functionality is inherent in the application and could be turned on if required primarily through configuration. The Project as defined does not include the cost of configuration of any of the Priority 3 functionality. Priority 4 requirements were defined as "nice to have" and are also not part of the implementation cost.

"Once these requirements were documented, an additional series of workshops were facilitated by Micon with the key business and technology Terasen Gas SMEs to evaluate various implementation alternatives such as software vendor, implementation approach, resourcing mix of Terasen Gas staff and consulting support required and timeline. The outcome of these workshops provided Terasen Gas with focus and an industry standard benchmark which was presented to the executives."

- 32.2 Please provide the industry standard benchmark which was presented to the executives.

**Response:**

Please refer to Attachment 32.2.



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**33.0 Reference: CIS SOFTWARE ALTERNATIVES**  
**Exhibit B-1, Appendix D Request for Quotation – CIS Replacement,**  
**pp. 3-4**  
**Insourcing Alternative – SAP CIS**

- 33.1 The potential customer volumes included on pages 3-4 appear to be higher than the volumes used in the cost analysis. Has the Company done sensitivity analysis on the cost per customer comparisons using the "anticipated volumes in five years"?

**Response:**

The potential customer volumes included on pages 3-4 of Exhibit B-1, Appendix D Request for Quotation – CIS Replacement, were indicative only and were intended to be used as background information for the respondents in preparing their bids as part of the Request for Quotation process. They do not represent a forecast that should be used to complete a sensitivity analysis of the type suggested in this question.

Please also refer to the response to BCUC IR 1.67.1 – 1.67.5.1 for a discussion of the impact of changing or different call volumes.

- 33.2 Please explain the "Average number of self-service web page views".

**Response:**

The "average number of self-service web pages views" represents the average number of web pages viewed/accessed on the Terasen Gas web site that support customer self-service transactions. This would include things like making payments, viewing bills, viewing account history, orders via the web, etc. These would all impact/connect to the CIS. The numbers assume the monthly average per customer.



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**34.0 Reference: CIS SOFTWARE ALTERNATIVES**  
**Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec 3.3.1**  
**Evolution of Customer Care, p. 47**  
**Outsourcing Alternative – Peace CIS**

"In particular, the technical solution for Customer Choice was largely built as a custom application at a cost of approximately \$18 million. The current CIS did not have the functional depth to accommodate what was required to implement the Customer Choice programs offered to commercial and residential customers which resulted in a solution that requires more oversight and maintenance than would be expected in an integrated solution. Since implementation, enhancements to the custom application have cost a further \$1.0 million, and will require additional investment should further enhancements be necessary"

34.1 Did the Peace CIS not have the capability required or was it a function that had not been turned on?

**Response:**

The implementation of Customer Choice was contracted to Accenture for design and implementation. Based on their recommendation the solution was built largely outside of the Peace CIS taking into consideration their assessment of the capabilities of the current CIS and the impacts on the call centre, billing operations and CIS support. Terasen Gas relied on the Accenture Program Manager to implement the most cost effective and lowest risk solution. Based on the recommended approach Terasen Gas concluded that the Peace CIS did not have the required capability to fully support the program requirements.



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**35.0 Reference: CIS SOFTWARE ALTERNATIVES**  
**Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec**  
**3.3.1**  
**Evolution of Customer Care, p. 47**  
**Outsourcing Alternative – Peace CIS**

"Although the Company can negotiate the costs associated with any change order under the CSA with CWLP, there is no ability to compare the proposed costs in a competitive market. From a technology perspective the cost to replace or enhance the current systems would not be less than the costs that Terasen Gas has determined through the RFQ's for both the CIS system replacement and the acquisition of current call centre technologies."

35.1 Please provide the cost detail used by the Company to confirm "the cost to replace or enhance the current systems would not be less".

**Response:**

Please refer to the response to BCUC IR 1.4.1.



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**36.0 Reference: CIS SOFTWARE ALTERNATIVES**  
**Exhibit B-4, Chapter 4 Analysis and Alternatives, Sec 4.1.3.4.2**  
**Analysis of the Peace CIS, pp. 65-67**  
**Exhibit B-4, Appendix O, Gartner CIS Magic Quadrant – June 15,**  
**2009**  
**Insourcing Alternative – Peace CIS**

The report contains these comments with respect to the Peace CIS:

Strengths

- Hansen's CIS product Peace originated in a competitive retail market and has the capability to address advanced contestable market requirements (such as customer switching and profitability analysis).
- The Peace implementation at Xcel Energy has proved that the product can meet the scalability requirements needed for large integrated utilities.
- The Peace acquisition by Hansen Technologies has mitigated concerns about Peace, which were created by the prolonged search for a new owner after First Data decided to exit the CIS market.
- Some clients in Asia/Pacific have noticed improvement in product support since the Hansen acquisition.

Cautions

- Based on end-user feedback, utilities considering Peace deployments should scrutinize the product's online performance and usability.
- Hansen is actively seeking customer participation in its next product release (aka PeaceX), which prompted some customers' concern that PeaceX will be more akin to a "custom-built solution" fit to a particular customer's needs, rather than a COTS product.
- The previous owner's (First Data Utilities) focus on service offerings and revenue management resulted in inadequate R&D investments in integration with adjacent products and services, such as service order management, outage management and meter data management, which forced the product to fall behind leading competitors in those areas.
- Several Peace clients have informed Gartner that they are in the process of replacing or considering replacement of Peace software. Some of them started considering replacement before the Hansen acquisition.

36.1 Do any of the strengths mentioned have an impact on the Company's choice of CIS?



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### **Response:**

This response addresses both BCUC IR 1.36.1 and 1.36.2. The Company's choice of CIS is not affected by the strengths mentioned in the report regarding Peace, but the Company shares some of the same concerns identified in the Gartner report.

### **Strengths**

TGI will first address the strengths identified in the Gartner report.

First, Terasen Gas is not focused on advanced contestable market requirements (such as customer switching and profitability analysis). This strength is accordingly of limited benefit to Terasen Gas customers.

Second, Terasen Gas was aware of the Xcel Energy implementation during its selection process. TGI agrees that it demonstrates scalability, but scalability was not a major concern for TGI regarding the Peace product. TGI's concerns arose from other issues identified in the Application and discussed further below.

Third, as stated in the Application, the resolution of the ownership issue following the acquisition of Peace by Hansen Technologies removed a significant concern regarding Peace. However, the Gartner report overall has confirmed for Terasen Gas that SAP and Oracle are market leaders and Peace lags behind as a niche player for reasons cited in the report.

Fourth, Terasen Gas is not surprised that some clients have experienced better customer support since Hansen's acquisition of Peace; prior to Hansen's acquisition, the platform suffered from multiple changes in ownership over a short period of time. Hansen has, however, communicated its intent to follow a client-specific "build-to-fit" strategy rather than a packaged solution approach. As discussed below, a true "packaged solution" has the attendant benefits of standardized product design, consistent versioning across its client base, and greater support capabilities.

### **Cautions Regarding Peace**

The cautions had a significant impact on the Company's choice of CIS:

First, as outlined in the Amended Application, Section 4.1.3.4.2 – Analysis of the Peace CIS, pp 65-66, Terasen Gas was cognizant of the move to a "custom-built solution" fit to a particular customer's needs, rather than a commercial off the shelf, or COTS, product. While this custom built approach may be suitable to some customers, it is not a solution that Terasen Gas believes is in the Company's or our customers' best interests long term. Custom built solutions are





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traditionally more costly to maintain because there are fewer support resources available and upgrades are more complex as a greater variation in code will exist from customer to customer. There is a significant SAP support structure in place (including consultants and SAP itself) as well as a significant pool of talent trained in SAP applications as a result of the broad use of SAP products, which is not currently present for Peace.

Second, as Gartner notes, a number of utilities are moving or intend to move away from Peace. A shrinking customer base of the Peace software may create challenges for Peace in terms of ongoing research and development. In contrast, SAP has a growing base (41 new utility customers in 2008 according to SAP) and has demonstrated its commitment to R&D investing (\$120M - \$150M annually in the Utility product suite).

For the reasons set out above and in the Application (see for example, pages 61-68), Terasen Gas continues to believe that the SAP CIS represents the best alternative for the Company and its customers.

- 36.2 Do any of the cautions mentioned have an impact on the Company's choice of CIS?

**Response:**

Please see the response to BCUC IR 1.36.1.



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**37.0 Reference: CIS SOFTWARE ALTERNATIVES**  
**Exhibit B-4, Chapter 4 Analysis and Alternatives, Sec 4.1.1 Software**  
**Ownership Costs, pp. 56-67**  
**Outsourcing Alternative – Peace CIS**

37.1 Provide detail on why management does not believe the current CIS Platform and customer care services provided by CWLP will support the anticipated new requirements.

**Response:**

Terasen Gas management does not believe the current CIS Platform and customer care services provided by CLWP will support anticipated new requirements for the following reasons:

- Terasen Gas believes that direct ownership and maintenance of key technologies such as the proposed SAP CIS platform provides Terasen Gas with the greatest degree of flexibility to incorporate future requirements in the most cost effective manner. This is based on the investment SAP has made and continues to make in the product, the customer user community, and the expansive SAP skill-set available to Terasen Gas when needed.
- Terasen Gas cannot determine the ability of the current CIS platform to support the anticipated new requirements because the vendor's response to Terasen Gas' detailed requirements document was not provided to the degree of detail required to make this determination. Although a response was provided that discussed at a high level the application's features, the vendor declined TGI's request to file its response as evidence for this proceeding.
- The Company does not believe that outsourcing of critical customer facing business processes and complex billing functions can be adequately supported through an outsourcing arrangement and still provide the quality of service that Terasen Gas is committed to providing to customers.
- Terasen Gas also believes that direct ownership and control over its critical business processes and enabling technologies provides Terasen Gas' customers with the best opportunity to benefit from process and technology improvements.

The CCE Project including the CIS replacement and the in-sourcing of the critical customer facing call centre and billing and back office operations will address these issues.



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- 37.2 What changes to the current CIS platform were required in order to accommodate these changes?

**Response:**

Terasen Gas cannot provide a detailed list of changes required in the Peace platform as Hansen did not respond to our detailed requirements RFQ at the degree of detail required to complete this task. Although a response was provided that discussed, at a high level the application's features, Hansen has not consented to TGI's request to file its response in evidence for this proceeding. Please refer to the above quoted reference for further details regarding the Company's dealings with Hansen.

- 37.3 Did the Company request CWLP to cost out the alternative to add the equivalent required functionality (of the SAP CIS) to their Peace CIS?

**Response:**

The Company did not request CWLP to cost out the alternative to add the equivalent required functionality (of the SAP CIS) to their Peace CIS. The Company did attempt to determine the capabilities and effort by going directly to Hansen Technologies, the vendor for the Peace product. The response from Hansen was inadequate for Terasen Gas to determine the cost to implement and support such an effort. Instead, Hansen suggested a joint design and development effort. Terasen Gas considers this approach more akin to a custom development which the Company believes would be materially more expensive to maintain. Hansen has declined TGI's request to file Hansen's response in evidence for this proceeding. Please refer to the above quoted reference for further details regarding the Company's dealings with Hansen.

- 37.4 Is the Company the only user of the CWLP Peace CIS? Would all costs for implementation of enhanced functionality be borne by the Company?

**Response:**

The Company is the only CWLP client using the Peace CIS. The Peace CIS is being used by other utilities; however, Terasen Gas does not consider these users to be comparable to



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Terasen Gas in terms of alignment on functional requirements. All costs for the implementation of enhanced functionality for Terasen Gas would be borne by the Company, and ultimately our customers.

- 37.5 Provide details on how the Company's expanded energy efficient initiatives and new products and service needs are being met by the current CIS platform and the current arrangement with CWLP.

**Response:**

Terasen Gas assumes that "energy efficient initiatives" was intended to be a reference to Energy Efficiency and Conservation initiatives. Terasen Gas assumes that the reference to "new products and service" is a reference to alternative energy solutions such as geothermal, solar thermal and district energy systems.

As alternative energy solutions are added prior to the go live date of the Project, any immediate support requirements, depending on the service required by an alternative energy customer, will either be handled from within the Company or possibly performed by CWLP. The only use of the current CIS platform will likely be through a simple interface to transfer financial transactions to the bill and some support for billing inquiries. Program design and development as well as participation tracking and customer contact related to enrolment and program education will be managed with internal Company resources.

The Company does not currently have any alternative energy customers and as such there are no service requirements from the current CIS platform in this area. The Company does not believe the current system is flexible enough to serve alternative energy customers. Depending upon the service required by an alternative energy customer, the Company would need to make a decision on whether or not to handle this service within the Company or if the service could be performed by CWLP. In the case of the latter, if the Company adds alternative energy heat delivery customers, the Company could be required to negotiate with CWLP for specific services related to the new service. The cost would be reflected in the cost of service of the alternative energy customer and would therefore be paid for through the alternative energy rate.

- 37.6 Have there been issues with CWLP being able to source the experienced resources necessary to support the current CIS platform?

**Response:**



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Yes, Terasen Gas believes that CWLP has been challenged in being able to attract and retain knowledgeable resources to sustain the application. There have been issues related to the timely resolution of billing accuracy issues as well as issues with IT controls related to CIS. The limited use of the application by North American utilities is a concern as the available and knowledgeable workforce to support the system is declining. The same issues do not exist with SAP and Oracle, which have a broad partner network and a significant and growing client base in North America.



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**38.0 Reference: CIS SOFTWARE ALTERNATIVES**  
**Confidential Exhibit B-3, Tab 1 SAP, Appendix A**  
**Confidential Exhibit B-3, Tab 2 Oracle**  
**Insourcing Alternative – SAP CIS**

Degree of Functional Fit – Work Effort Estimates: Each requirement (Configuration, Enhancement, Interface) has been assigned a level of work effort with a best case and work case scenario.

38.1 What was the degree of functional fit to the Company's requirements for the SAP bid compared to the Oracle bid?

**Response:**

SAP represented the greatest degree of functional fit as only three priority 1 & 2 requirements<sup>5</sup> could not be met in some manner by the product as opposed to six for Oracle. Moreover, because Terasen Gas already has an extensive SAP platform in place, an SAP CIS solution will eliminate the need for twelve separate interfaces, which would otherwise be required under an Oracle solution. This in turn will help simplify the overall support requirements and contributes to a lower cost of ownership. An SAP solution also allows for the potential streamlining of business process by virtue of the integrated nature of the application. This provides Terasen Gas with future opportunities to improve business processes that would create efficiencies for Terasen Gas and its customers over time. These same efficiencies and future opportunities could not be obtained with an Oracle solution or any other non-SAP solution.

38.2 What level of work effort was used in the calculation for the work effort, and resulting days of programming effort, comparing the two bids?

**Response:**

Neither SAP nor Oracle were specifically requested to provide implementation services, and associated work effort, as part of the CIS Software RFQ. The work effort estimates provided by CIS vendors were intended to provide Terasen Gas with guidelines as to the order of magnitude required to meet the requirements. These guidelines provided by the vendor were shared with the potential System Integrators for the intended purpose of ensuring consistency between what the vendors thought the effort would be and what the System Integrator estimated. The System Integrators were to flag any requirement for which the estimated effort provided by the vendors

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<sup>5</sup> Priority 1 & 2 were identified by Terasen Gas as functionality required for go-live



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were deemed to be out of line with the System Integrators' understanding of how the requirements could be met. While there were some minor differences in interpretation between items (i.e. configuration vs. in base product) there were no meaningful differences noted by any of the short listed System Integrators.



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**39.0 Reference: CIS SOFTWARE ALTERNATIVES**  
**Confidential Exhibit B-3, Tab 1 SAP, Appendix B**  
**Confidential Exhibit B-3, Tab 2 Oracle**  
**Insourcing Alternative – SAP CIS**

39.1 What was the degree of technical fit to the Company's requirements for the SAP bid compared to the Oracle bid?

**Response:**

While both vendors had the capability to address the Company's technical requirements, SAP had a greater technical fit compared to the Oracle bid for Terasen Gas. This was due primarily to the fact that Terasen Gas had an already established SAP platform, infrastructure and support environment. The technical architecture was consistent with the rest of Terasen Gas' key business applications given that:

- (i) they were already SAP,
- (ii) the system administrative tools, processes, and procedures were already in place,
- (iii) change control processes and procedures were already in place, and
- (iv) a skilled technical support staff is already in place and only needs to be augmented to support the incremental infrastructure. Terasen Gas currently does not have any Oracle applications that could provide this same support synergy and would require more incremental resources than that of an SAP solution.

These factors made an SAP CIS solution a better technical fit for Terasen Gas.

39.2 What level of work effort was used in the calculation for the work effort, and resulting days of programming effort, comparing the two bids?

**Response:**

The determination of work effort was not used for comparing the two bids, but rather was used to ensure coordination with a System Integrator.

In the SAP proposal, each requirement was assigned a level of work effort - Low (L), Medium (M), or High (H) - within the context of its category. A table was then provided as a guide to outline the estimated work effort ranges for each category. The range allowed for a best case (Low) work effort and worst case (High) work effort. Medium was assumed to be the average.





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In the case of the Oracle proposal, Oracle provided specific work day effort for every requirement that required extension or configuration to the Oracle Application. All other requirements were assumed to be Low.

The purpose of the effort requirements from the product vendor was to provide Terasen Gas with the vendor's understanding of the effort required for their respective products to meet each requirement. These efforts would be shared with the prospective System Integrators to ensure both the vendor and the System Integrator had a common understanding of the overall work effort and any discrepancies could be identified early in the process.



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**40.0 Reference: CIS SOFTWARE ALTERNATIVES**  
**Confidential Exhibit B-3, Tab 1 SAP**  
**Confidential Exhibit B-3, Tab 2 Oracle, Section 1 – Executive**  
**Summary, p. 1-1**  
**Insourcing Alternative – SAP CIS**

- 40.1 Please comment on the Company's view of the ongoing investment by SAP and Oracle in their CIS software, if one of those companies is investing at a far greater rate, and if this has affected the selection of SAP.

**Response:**

Terasen Gas believes that SAP and Oracle have demonstrated an ongoing commitment to investment in their respective product suites. SAP has consistently invested in the ongoing development of its product suite with an estimated annual R&D budget of \$1.5B, of which 8% - 10%, or \$120M - \$150M, is typically dedicated to its Utility Industry Solution of which CIS is a major component.

A key to Oracle's strategy is the acquisition of companies, products, services and technologies. While not providing details of investments in CIS products specifically, in 2006 Oracle acquired SPL WorldGroup and in 2007 acquired LODESTAR Corporation and merged both into the Oracle Utilities Global Business Unit.

Terasen Gas did not consider the amount of annual investment by either the SAP or Oracle as a key differentiator between the two products but this significant investment does set them apart from others in the marketplace.



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**41.0 Reference: CIS SOFTWARE ALTERNATIVES**  
**Confidential Exhibit B-3, Tab 1 SAP**  
**Confidential Exhibit B-3, Tab 2 Oracle, Section 1 – Executive**  
**Summary, p. 1-2**  
**Insourcing Alternative – SAP CIS**

41.1 Please comment on whether the Oracle ten-year cost of ownership is substantially lower than the SAP alternative.

**Response:**

The total cost of ownership is a function of three factors:

- the cost to acquire the software;
- the cost to implement the CIS solution; and
- the cost of the ongoing maintenance of the CIS solution.

When all three of these factors were considered, an SAP CIS solution represented the lowest total cost of ownership for Terasen Gas. The Oracle ten-year cost of ownership is higher than the SAP alternative when one considers the life-cycle cost of the two options.

The favourable total cost differential for SAP relates to the relative maintenance costs for SAP and Oracle. Terasen Gas already has a significant investment in an SAP platform in place today. Terasen Gas has established production, testing, development and training environments for SAP that can all be leveraged as part of the CIS solution. The Company has invested significant effort in establishing and refining robust support processes and procedures that are well understood and proven to be effective and efficient in supporting Terasen Gas and its customers. With its already extensive SAP platform in place, Terasen Gas is able to minimize the number of additional resources that would be required to support an SAP CIS solution. Refer to BCUC IR 1.26.3 for details on the proposed FTE support requirements. The ability to leverage these investments would not be possible with an Oracle solution and would result in higher ongoing maintenance costs and a higher total cost of ownership.

Moreover, as outlined in the Application, an SAP CIS solution has the added advantage of being designed to be fully integrated with the other SAP supported business processes such as financial management and field workforce management. As Terasen Gas operates in an SAP environment, the adoption of the SAP CIS provides Terasen Gas with the opportunity to further streamline business processes over time. For the purposes of this Application, no efficiencies related to these future opportunities have been quantified or included in the financial analysis. These opportunities will be addressed in future revenue requirements applications as they are



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identified and implemented. Oracle does not provide the same opportunity for streamlined business processes because Terasen Gas does not use Oracle in other applications.

In companies where no SAP environment exists, the comparison of an SAP CIS solution vs. an Oracle CIS solution ten-year total cost of ownership would be much more comparable. In the case of Terasen Gas, where so much already exists to support SAP, an SAP CIS solution represents the lowest total cost of ownership long term. As both Oracle and SAP met the functional requirements, the total cost advantage of SAP over Oracle, and the potential for further integration of an SAP CIS with Terasen Gas' other SAP applications ultimately determined TGI's selection of an SAP CIS solution.

- 41.2 If it was lower than the SAP pricing, what were the benefits that out-weighed the cost differential on the selection of SAP?

**Response:**

Please see the response to BCUC IR 1.41.1.



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**42.0 Reference: CIS SOFTWARE ALTERNATIVES**  
**Confidential Exhibit B-3, Tab 1 SAP**  
**Confidential Exhibit B-3, Tab 2 Oracle, Section 1 – Executive**  
**Summary, p. 1-2**  
**Insourcing Alternative – SAP CIS**

42.1 Please comment on CIS product set-up, configuration and/or customization, and whether the Oracle solution would be less expensive to install than the SAP solution.

**Response:**

Please refer to the response to BCUC IR 1.41.1.

42.2 If it was projected at a lower cost than the SAP installation, what were the benefits that out-weighed the cost differential on the selection of SAP?

**Response:**

Please refer to TGI's response to BCUC IR 1.41.1.



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## INSTALLATION

**43.0 Reference: INSTALLATION**  
**Exhibit B-4, Chapter 2 Project Description and Schedule, Sec 2.5**  
**Project Risks and Mitigation, p. 31**  
**Insourcing Alternative – SAP CIS**

43.1 Please identify the specific line(s) in the confidential spreadsheet that contain the appropriate contingency.

**Response:**

The cost contingency associated with the CIS Implementation is found in rows 56, 90, 102, 115, 139, 140, 160, and 181 on the CCE Project Costs tab of confidential spreadsheet 2 (Detailed Project Costs).

The total amount of contingency applicable to the CIS implementation is 11% of the overall Project cost. Terasen Gas feels this is an appropriate amount to manage the cost risks associated with a project of this size and complexity.



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**44.0 Reference: INSTALLATION**  
**Exhibit B-4, Chapter 4 Analysis and Alternatives, Sec 4.2.1.1.3**  
**Terasen's Preferred Implementation Strategy, p. 71**  
**Insourcing Alternative – SAP CIS**

- 44.1 What is the Company's contingency plan to continue customer related services should the one-time full implementation be delayed beyond the January 1, 2012 date?

**Response:**

The Company plans to continue to have CWLP provide the services for the intervening period in the event the implementation is delayed.



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**45.0 Reference: INSTALLATION**  
**Exhibit B-4, Chapter 4 Analysis and Alternatives, Sec 4.2.1.2.1 CIS**  
**System Integrator, pp. 72-73**  
**Insourcing Alternative – SAP CIS**

"Terasen Gas engaged Micon Consulting, an independent consulting firm focused on the investor-owned and public sector utilities industry, to support the Company in the CIS System Integration evaluation process."

- 45.1 Please provide the terms of reference for the work performed by Micon Consulting. Please provide a copy of the facts and assumptions the Company provided to Micon Consulting.

**Response:**

Attachment 45.1, which contains the scope of services contracted to Micon Consulting, is provided to the Commission confidentially under separate cover. The attachment contains intellectual property of Micon Consulting which Micon feels provides a competitive advantage.

There are no additional facts or assumptions the Company provided to Micon Consulting.

- 45.2 Please provide the cost of the work performed by Micon Consulting.

**Response:**

This response is provided to the Commission confidentially under separate cover. Micon has identified the information requested in this question as being commercially sensitive and therefore TGI needs to maintain confidentiality of the information provided in this response and limit its disclosure.





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**46.0 Reference: INSTALLATION**

**Exhibit B-4, Chapter 6 Project Cost, Sec 6.2 Summary of Project  
Implementation Costs, p. 110, Table 6.1  
Exhibit B-4, Appendix K Financial Schedules, S1 Schedule 1  
Insourcing Alternative – SAP CIS**

- 46.1 Please confirm if the \$5,049k in consulting costs, part of the \$6,110k for 2012, are expected or part of the contingency.

**Response:**

The \$5,049 thousand in consulting costs that is part of the \$6,110 thousand for the CIS Implementation in 2012 consists of both expected and contingency costs.

Expected costs represent \$4,774 thousand of the \$5,049 thousand; with contingency accounting for the balance of \$275 thousand.

The contingency costs reflect the uncertainty of not knowing what specific issues will have to be addressed when new systems are first placed into production.

- 46.2 Please confirm the capital overhead loading rate used for the Company's employees used on the project.

**Response:**

The capital overhead loading rate used in the project financial analysis and applied to the incremental O&M expense is TGI's existing rate of 16%.

The capital overhead loading rate used in the project financial analysis reflecting accounting changes and IFRS implications is TGI's revised rate of 8%, as proposed in the TGI RRA.



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**47.0 Reference: INSTALLATION**  
**Exhibit B-4, Chapter 7 Conclusions, p. 122**  
**Insourcing Alternative – SAP CIS**

"d) Our corporate capacity to build projects, manage operations and integrate sophisticated systems has expanded significantly over the past seven years, as evidenced by the success of our operating model and financial results delivered to the benefit of our customers and shareholder."

47.1 What similar IT system Implementation projects has the Company undertaken in the past five years?

**Response:**

Similar IT system Implementation projects undertaken in the past five years include the following:

- The TGV1 integration project integrating Terasen Gas and TGV1 on a single technical operating platform;
- The Distribution Service Delivery Enhancement Projects – phase I (automated scheduling and mobilization of the construction workforce);
- The Distribution Service Delivery Enhancement Projects – phase II (implementation of Café - an application that accepts applications for gas, provides customer and partner relationship tracking, allows for detailed project planning and is the front end for staging data to SAP and Click Schedule to continue the construction process); and
- The Distribution Mobile Solution Project.

Spanning back over the last seven years, Terasen Gas also undertaken the implementation of the Order Fulfillment projects, which replaced the Company's legacy work management system. Although not as large from a cost perspective, these projects are similar in complexity and numbers of resources required to manage and successfully complete. TGI's past performance in respect of these projects therefore provides TGI with the confidence in its ability to execute on a project of this nature.

47.2 What issues were identified as areas for improvement in the post implementation review of these systems?



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**Response:**

Key issues that have been identified over the past seven years and continue to be areas of focus are:

- Change management. More than just training development, change management is an area that all projects must focus on. In some instances, Terasen Gas tried to manage all aspects of change management with internal resources. A key lesson learned was that good change management is a skill that is not inherent within everyone at Terasen Gas and that external expertise in a leadership role positions Terasen Gas with the greatest opportunity for success.
- Role-based training. All training should be structured as role-based. It is not enough to train on how the technology works. Equal attention must be paid to the supporting business processes that are supported by the technology.
- Greater formality on acceptance of new applications and business processes by business process owners. Business process owners must put greater emphasis on ensuring that all impacted personnel have been prepared for the changes that go along with a new system or new business processes.
- "Storm period" support. There is always a stabilization or "storm" period after the initial project go-live where issues that went undetected through the various testing phases are uncovered. It is imperative that the project team remains in place to address these issues as they arise and are addressed quickly.

Terasen Gas strives to improve with each new project and will ensure that the lessons learned from previous projects will be incorporated into the SAP CIS project.

47.3      What has management done to ensure the same issues will not occur with the proposed CIS platform implementation?

**Response:**

The Company is always reviewing lessons learned from previous projects and finding ways to improve its processes as part of our commitment to continuous improvement and operational excellence.

First, Terasen Gas has budgeted for specific change management expertise to provide a leadership role for Terasen Gas' efforts in this important area. Change management is a specific skill that encompasses all aspects of training, communication, business process



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changes and business readiness / user acceptance. One key area that Terasen Gas will emphasize is ensuring all users have been trained and are proficient on the business processes that they support, not just trained on how to use the technology. Ensuring that users understand what to do and why they do it is every bit as important as how to do it.

Second, Terasen Gas will ensure that role-based training will be implemented as part of the training strategy of the project.

Third, Terasen Gas will also increase the formality and rigor associated with user acceptance. During the design phase of the project, functional specifications will not only be signed off by business subject matter experts but also by the technical resources, ensuring the technical resources understand what the business is wanting as an outcome. Additionally, once the technical specifications are completed, these will also be signed off by the business subject matter experts ensuring that the business is in agreement with specifically how the functional requirement will be met technically. This will ensure a greater understanding by all prior to any significant effort in the development phase of the project.

Fourth, as part of the proposed SAP CIS implementation plan, a transition team made up of key members of the project team will be kept to ensure a smooth transition to day-to-day operation. This transition period is estimated to be over a 3 month period after the go-live date.

Terasen Gas believes that capitalizing on past learnings will improve the overall execution of this Project.

For further details on how HCL Axon incorporates lessons learned in previous projects into their methodology, please refer to Confidential Exhibit B-3, Attachment VI, Capturing Lessons Learned pp 63-64.



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**48.0 Reference: INSTALLATION**  
**Exhibit B-1, Chapter 2 Project Description and Schedule, Sec. 2.5**  
**Project Risk and Mitigation, p. 31**

"The proposal from HCL Axon is fixed price with payments based on project deliverables."

48.1 Please provide a listing of project deliverables by HCL Axon.

**Response:**

The comprehensive list of anticipated project deliverables can be found in Confidential Exhibit B-3, Tab 3 HCL Axon, Attachment VI – HCL Axon's Work Methodology, pp. 11-55.

The acceptance criteria for the deliverables as they relate to specific payments can be found in Confidential Exhibit B-3, Tab 3 HCL Axon, p. 67.

48.2 Are there any penalties for not meeting the project deliverables within the budgeted time lines?

**Response:**

Terasen Gas is currently in the process of detailed contract negotiations with HCL Axon on terms and conditions. The only deliverable tied to a specific date is the project go-live date. It is TGI's intent to ensure HCL Axon and all of the other parties involved in the Project are responsible and accountable to meet the go-live date including financial commitments where appropriate. Terasen Gas will be seeking to negotiate provisions in its agreement with HCL Axon whereby HCL Axon will be required to pay a specified sum to TGI in the event that HCL Axon is found to be responsible for additional costs incurred as a direct result of HCL Axon's failure to meet its contractual obligations. Even in the absence of such a clause, HCL Axon will be motivated to facilitate the achievement of project milestones by virtue of the payment terms. During the course of the project, each payment to HCL Axon will be tied to clearly defined acceptance criteria. Payments will only be made once the criteria has been met and signed-off.



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48.3 Is there any ability for the fixed price to be increased?

**Response:**

Please see the response to BCUC IR 1.24.1.



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**49.0 Reference: INSTALLATION  
Order C-5-07, Directive Three  
Insourcing Alternative – SAP CIS**

"TGI's Internal Audit department is to perform a formal post-implementation review of the Distribution Mobile Solution Project and provide a written report to the Commission..."

- 49.1 In the post-implementation review that the Commission received on March 31, 2009, p. 4, issues were identified where lessons learned may be incorporated for future projects. How does the Company plan to benefit from the lessons learned in the previous IT project to ensure they do not occur in this proposed project specifically relating to change management and user accepted protocol?

**Response:**

The Company is always reviewing lessons learned from previous projects and finding ways to improve its processes. Two specific instances are described below.

First, Terasen Gas has budgeted for specific change management expertise to provide a leadership role for Terasen Gas' efforts in this important area. Change management is a specific skill that encompasses all aspects of training, communication, business process changes and business readiness / user acceptance. One key area that Terasen Gas will emphasize is ensuring all users have been trained and are proficient on the business processes that they support, not just trained on how to use the technology. Ensuring that users understand what to do and why they do it is every bit as important as how to do it.

Second, Terasen Gas will also increase the formality and rigor associated with user acceptance. During the design phase of the project, functional specifications will not only be signed off by business subject matter experts but also by the technical resources, ensuring the technical resources understand what the business is wanting as an outcome. Additionally, once the technical specifications are completed, these will also be signed off by the business subject matter experts ensuring that the business is in agreement with specifically how the functional requirement will be met technically. This will ensure a greater understanding by all prior to any significant effort in the development phase of the project.



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**50.0 Reference: INSTALLATION**

**Confidential Exhibit B-3, Tab 3 HCL Axon, p. 65**

**Confidential Exhibit B-3, Tab 4, Blue Heron, Workday Summary  
Insourcing Alternative – SAP CIS**

- 50.1 Please provide the number of HCL Axon consulting hours and the number of SAP consulting hours in the HCL Axon bid.

**Response:**

This response is provided to the Commission confidentially under separate cover. The information in the HCL Axon quote is commercially sensitive for HCL Axon.

- 50.2 Please confirm the HCL Axon bid price, including required SAP consulting, in Canadian dollars.

**Response:**

The HCL Axon bid is in US dollars. Terasen Gas feels it is in the best position to manage the volatility of the dollar exchange rate (similar to the Mt. Hayes LNG project) and has accounted for the forecasted exchange rate as a separate line item in the project budget.

The required SAP consulting effort is in Canadian dollars.

- 50.3 The Blue Heron response references Terasen providing approximately 75 percent as many project hours as Blue Heron. Please provide the comparable number of hours of Terasen work assumed in the HCL Axon process.

**Response:**

TGI is unable to determine how the metric referenced in the question was determined. It is important to note that the two proposals (Blue Heron and HCL Axon) are for two different sets of work. As such, it is not meaningful to compare the units of efforts as between each provider and Terasen Gas.





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**51.0 Reference: INSTALLATION**  
**Confidential Exhibit B-3, Tab 3 HCL Axon, p. 66**  
**Confidential Exhibit B-3, Tab 4, Blue Heron**  
**Insourcing Alternative – SAP CIS**

51.1 Please explain the work to be done by the Transition team.

**Response:**

"Transition team" refers to a subset of the project team after the specific go-live date as the project "transitions" from project mode to day-to-day operation mode. As with any project that involves significant change to the business processes or introduces new technologies, there will be a period of time required to "stabilize" the new system and business processes (also known as the "storm" period). Key members of the project team (the "Transition team") will remain engaged to support the ongoing maintenance team to address any deviations from expected results either through technology errors or business process changes that were not detected through the various testing phases or requirements for refresher training as quickly as possible. It is expected that the transition from project to day-to-day operation will take approximately three months with the Transition team winding down over the three month period. Terasen Gas' proposed use of a Transition team is an important means of facilitating the successful implementation of the Project.

51.2 Is this work required by the project? If so, are the costs included in the total project cost. Please identify the specific location in the B-4 Appendix X Spreadsheets.

**Response:**

Yes, the work described in the exhibits referenced above is required to successfully implement the Project. The need for this work is more fully described in the response to BCUC IR1.51.1, where the role and importance of transition activities are discussed.

The transition costs as quoted by HCL Axon are included as a Project cost, The transition costs also include those for the Company and for other third parties that are expected to play a role in completing transition activities. These costs are found in confidential spreadsheet 2 (Detailed Project Costs) and summarized in cell AN189 less a portion of the amounts included in cells AN64 and AN67 and all of cell AN98. Cells AN64 and AN67 include a hold-back amount that is



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payable to HCL Axon on the successful completion of the Project and that does not relate to transition activities that the Company will be required to complete. The amount excluded in cell AN98 does not relate to the completion of transition activities and needs to be excluded for that reason.

51.3 Please provide the amount quoted by Blue Heron for this work.

**Response:**

This response is provided to the Commission confidentially under separate cover. The information contained in the Blue Heron proposal is commercially sensitive to Blue Heron.



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**52.0 Reference: INSTALLATION**  
**Confidential Exhibit B-3, Tab 3 HCL Axon, p. 71**  
**Insourcing Alternative – SAP CIS**

- 52.1 Does the Company have to upgrade its existing SAP systems to ECC 6.0?  
Where is the cost for that process identified, and is it part of this total project cost?

**Response:**

Terasen Gas is already on SAP version ECC 6.0. No costs associated with upgrading the existing SAP environment are included as part of the SAP CIS project cost.

- 52.2 Please explain the "Unicode conversion," how it applies to this project, and where the cost is identified and included in the B-4 Appendix X Spreadsheets.

**Response:**

Unicode conversion, a common industry term and standard, refers to a technical conversion of data that provides a standard and consistent representation of characters between application platforms. It facilitates and improves the consistency of the interfacing between different platforms. It is part of the SAP upgrade process and is not related to the SAP CIS project. No costs associated with the Unicode conversion are part of the SAP CIS project.



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**53.0 Reference: INSTALLATION**  
**Confidential Exhibit B-3, Tab 3 HCL Axon, p. 75**  
**Insourcing Alternative – SAP CIS**

- 53.1 Assuming the SAP standard functionality, without configuration, will produce much of what is expected from Terasen, please provide the amount of contingency built in to the total project cost to cover enhancements identified during the installation process.

**Response:**

The Company has worked diligently to put together as comprehensive a list of requirements as it could. HCL Axon estimated the development effort required based on the requirements matrix provided by Terasen Gas. Once detailed design is complete, the total effort can be confirmed, but is something that is not anticipated to be materially different from the initial estimate. One potential area where new requirements may surface is if there are new requirements introduced between the time that HCL Axon had submitted its proposal and the system go-live date. Depending on the significance of a change, a change control may be raised to address the new requirement. Terasen Gas intends to use the change control process to justify any new requirement that will result in an increased cost from HCL Axon. The contingency is approximately \$3.9 million or 10% of the CIS implementation consulting budget and required to address all third party consulting services that are necessary to complete the CIS implementation, not just the services provided by HCL Axon.



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**54.0 Reference: INSTALLATION**  
**Confidential Exhibit B-3, Tab 3 HCL Axon, p. 76**  
**Insourcing Alternative – SAP CIS**

- 54.1 Please comment on the Company's plan to adopt SAP best practice processes rather than re-implement existing legacy processes, unless legal requirements dictate such deviation from an SAP best practice process.

**Response:**

The Company plans to adopt SAP enabled best practices wherever possible. SAP is one of the market leaders in the Utility CIS marketplace. It makes significant investments in its products. It also invests in working with its user community to ensure that SAP supports industry best practices as requested by its user community.

The Company will have identified any exceptions to the SAP enabled best practices that cannot be avoided once detailed design is completed. Terasen Gas intends to require any exceptions from the SAP best practices to be justified as a mini "business case" to ensure that these exceptions are necessary and absolutely required. These mini "business cases" will be required to be approved by the project steering committee.

As a long-standing SAP customer, Terasen Gas is confident that its requirements can be met by SAP without having to customize the code to support a legacy process. By adopting SAP best practices, Terasen Gas can avoid costly modifications and more costly upgrades in the future.

- 54.2 Has the Company identified processes that will be changed from that provided by SAP? If so, what value has been included in the total project cost for these changes? Please identify the specific location in the B-4 Appendix X Spreadsheets.

**Response:**

The Company has not at this time identified any processes that will be changed from that provided by SAP. Refer to the response to BCUC IR 1.54.1 for the Company's position relating to the adoption of SAP best practices.



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- 54.3 Please comment on the relative cost differential between the SAP and Oracle software for the customization required to meet the Company's requirements.

**Response:**

The nature of the two software packages is quite different and as such Terasen Gas would expect the associated efforts on specific types of customizations to vary between the two products. In Terasen Gas' estimation, the two software packages appear to have similar degrees of complexity based on the hours provided by both System Integrators. Both proposals have provided similar ranges of estimated work efforts. Although the specific categories of customization (e.g. Form vs. Report, vs. User Exit, etc) were not provided in a similar manner (and was not specifically requested in the RFQ), Terasen Gas considers the effort to be comparable for each product.



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**55.0 Reference: INSTALLATION**  
**Confidential Exhibit B-3, Tab 3 HCL Axon, p. 89**  
**Confidential Exhibit B-3, Tab 4 Blue Heron**  
**Insourcing Alternative – SAP CIS**

55.1 Please provide the Blue Heron cost estimate for the extra work required should the Terasen Utilities be amalgamated effective January 1, 2012.

**Response:**

Blue Heron did not provide a cost estimate as part of its proposal.



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## MAINTENANCE

### 56.0 Reference: MAINTENANCE

**Exhibit B-4, Chapter 4 Analysis and Alternatives, Sec 4.1.4 SAP as Preferred CIS**

**Software Solution, pp. 67-68**

**Insourcing Alternative – SAP CIS**

"it is more cost effective than to replicate the entire infrastructure and support staff required for a different solution."

56.1 Please describe the current infrastructure and support staff, including the total cost.

### **Response:**

The current SAP infrastructure consists of the following:

### **ECC 6.0 Servers**

PRD (production): 1 database servers, 4 application servers

QAS (testing - also act as failover for PRD): 1 database server; 1 application server

DEV (development): 1 database/app server

TRN (training): 1 database/app server

D01 (development for sustainment during project only): 1 database/app server

Q01: (QA for sustainment during project only): 1 database/app server

SX3 (Sandbox for testing): 1 database/app server

BR3 (BW ECC datasource system for testing): 1 database/app server

### **BW servers**

BWP (Production BW): 1 database server

BWQ (QA BW): 1 database

BWD (development BW): 1 database





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BWS (sandbox BW): 1 database

### **Portal servers**

PP1 (production Portal): 1 application server

PP2 (production standby portal): 1 application server

PQ1 (QA Portal): 1 application server

PD1 (development Portal): 1 application server

PS1 (Sandbox Portal): 1 application server

### **UPerform (from RWD)**

1 production server

Terasen Gas does not have a specific "SAP only" support staff. The Enterprise Application Support and Delivery group is not only responsible for all of the SAP applications but also all of the other technologies<sup>6</sup> that are so tightly integrated into SAP and the business processes that it is managed as one. The total number of staff in this group is 24.

The total 2009 O&M budget for this support group (excluding infrastructure support) is approximately \$5 million. This budget includes labour, administrative, training, and software

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<sup>6</sup> Other applications support by this group:

- Field workforce scheduling from ClickSoftware,
- Smart Work Manager for SAP (field work management mobile system) from Syclo,
- Café (used to accept applications for gas, provides customer and partner relationship tracking, allows for detailed project planning and is the front end for staging data to SAP and Click Schedule to continue the construction process),
- Contract Processing System (used to manage contractor construction activities),
- Esker DeliveryWare Platform (Provides Procurement department to send fax and email from SAP as well as fax from users desktop using Outlook),
- FLEX (This application allows employees to enroll in flex benefits via a web link),
- MACS (Supports Meter Shop business processes primarily capturing measurement equipment data that is interfaced to SAP)
- PWN (Credit card management system. Web based application which records & reports on Corporate Scotia Visa card activity)
- TD Business Window Products (This software is used by Treasury for their lending & borrowing activities, doing Wire payments & bank transfers)
- UPerform (create training materials and documentations from RWD)



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license costs, and any ad-hoc third party consulting services associated with the applications listed.

The complete infrastructure support costs are not managed by application (facilities, offsite storage, help desk, etc) so it is not possible to separate out those costs specifically for SAP support; however, the costs associated with supporting the specific SAP servers as itemized above can be separated. The annual costs to support the existing SAP server infrastructure as itemized above is estimated at approximately \$140,000 annually. This number does not include any support costs for the infrastructure to support the other technologies noted.

56.2 Please describe the infrastructure and support staff changes, including incremental cost, that will be required for the proposed SAP CIS.

**Response:**

The incremental support staff changes (7 additional functional FTEs and 3 additional technical FTEs) are described in the Amended Application, Exhibit B-4, Chapter 4, Analysis and Alternatives, Sec 4.2.1.3.2.1 CIS Maintenance of an SAP solution page 76.

The changes in infrastructure include:

- potential minor upgrades to existing SAP servers (memory, processors),
- potential increases in service level support for some existing SAP production servers (to be confirmed after the detailed design phase of the project),
- additional server infrastructure to support the CRM component of SAP,
- additional server infrastructure to support the bill composition and archiving software, and
- additional disc storage capacity.

For further details, please refer to the response to BCUC IR 1.57.2.

The incremental O&M cost of the proposed SAP CIS system is expected to be approximately \$2.66 million in 2012. This includes all the associated costs for the items identified above and also includes the ongoing licensing costs for the various software components.



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- 56.3 Please describe the infrastructure and support staff changes, including incremental cost, that would be required for a Peace CIS instead of the SAP option.

**Response:**

Terasen Gas did not go into the details of the infrastructure and incremental support costs of a Peace alternative. As outlined in the Amended Application (Exhibit B-4, Chapter 4 Analysis and Alternatives, pp 56-67), Terasen Gas does not believe that a Peace CIS platform is the best solution for the Company or its customers long-term. Once that determination was made (again, refer to the Amended Application as referenced above), Terasen Gas pursued the detailed analysis of what it considered the best alternatives for the Company and its Customers.



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**57.0 Reference: MAINTENANCE**  
**Exhibit B-4, Chapter 4 Analysis and Alternatives, Sec 4.2.1.3.2.1 CIS**  
**Maintenance of an SAP solution, pp. 75**  
**Insourcing Alternative – SAP CIS**

"An SAP solution will be able to take advantage of existing SAP server infrastructure. An SAP CIS will be able to utilize the same database servers, applications servers, web servers, and business intelligence servers. These synergies will extend to the Production, Testing, Development and Training environments."

57.1 Please confirm the SAP CIS will run on the existing IT infrastructure will no additional servers required.

**Response:**

An SAP CIS will be able to take advantage of existing IT infrastructure but will also require some incremental servers. The current SAP infrastructure that will be utilized for SAP CIS is documented in the response to BCUC IR 1.56.1.

The disc storage will also have to increase to support CIS.

The CRM component of the CIS solution will require its own servers

- PRD :1 database and 2 – 3 application servers (depending on system performance).
- QAS (also act as failover for PRD): 1 database server; 1 application server
- DEV: 1 database/app server
- TRN (training): 1 database/app server
- D01 (development for sustainment during projects only): 1 database/app server
- Q01: (QA for sustainment during projects only): 1 database/app server
- SX3 (Sandbox for testing): 1 database/app server
- DRP: 1 database and 2 -3 application servers (depending on system performance)

Additional servers for bill composition and archiving will also be required but would be required regardless of the CIS solution chosen.

For further information, please see the response to BCUC IR 1.57.2 and 1.57.3.



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- 57.2 Please expand on why the existing servers are large enough to accommodate the SAP CIS. Have the IT infrastructure costs been higher than necessary due to this unused capacity?

**Response:**

As outlined in the response to BCUC IR 1.57.1, while a significant portion of the existing SAP infrastructure can be used for CIS, additional servers will be required to support the full SAP CIS solution. Due to the component nature of a server, the ability to create the additional capacity of an existing server is both quick and cost effective. The three major components that contribute to increasing server capacity and performance are memory, processors and disc storage. The one time capital cost for 1GB of additional memory is \$50. Terasen Gas can double the memory in its SAP production database server for \$3000. The same holds true for processors. The same server can have its processing power doubled for around \$3500. The server support costs are by server and are not impacted by the components in the servers. As a point of fact, by increasing the capacity of servers at negligible cost, potential performance issues requiring manual intervention can be avoided resulting in lower operating costs. Terasen Gas has allowed for the addition of memory & processors in its budget should they be necessary. This is a much more cost effective way of increasing the capabilities of existing servers without having to go to the expense of buying and supporting additional servers.

The Project has also budgeted for the anticipated growth of storage required based on the anticipated increase of data required by a CIS. As a risk mitigation factor, the Company has also budgeted a contingency amount for the hardware component in the event additional application servers to provide additional load balancing are determined to be required through the stress and volume testing phases of the Project.

The combination of advances in infrastructure technology combined with the cost competitive nature of the hardware industry allows Terasen Gas to take advantage of both to provide technical architecture that is both scalable and cost effective.

- 57.3 Have the financial benefits of the synergies been included in the projected future O&M costs? If not, under a future PBR (Performance Based Regulation) who will benefit from the synergies, the ratepayers or the Company?



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**Response:**

The benefits have been included in the projected future O&M costs. These benefits are represented as cost avoidance in comparison with another solution that would require a much larger purchase and maintenance of infrastructure. Stated a different way, the benefits are that this solution will cost less to purchase, implement and run from an infrastructure standpoint.

TGI is not proposing a PBR in this Application. A future PBR, much like the current PBR, might be expected to be the product of a negotiated settlement. Issues such as how the base O&M would be established and who shares in savings from the base O&M are matters for negotiation in a future proceeding. It would be presumptive for TGI to speculate in this proceeding how a future PBR would be structured. In this proceeding, the important fact is that the Project presents potential savings in O&M relative to the notional cost of the current solution, and under the traditional rate base rate of return ratemaking model (under which the company will operate in the 2010 / 2011 RRA period) customers will enjoy the full benefit from reductions in O&M.



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**58.0 Reference: MAINTENANCE**  
**Exhibit B-4, Chapter 4 Analysis and Alternatives, Sec 4.2.1.3.2.1 CIS**  
**Maintenance of an SAP solution, pp. 76**  
**Insourcing Alternative – SAP CIS**

"Terasen will only undergo the cost of the upgrade if it is required to support specific functionality or is required to remain in a supported state."

58.1 Please explain the current, as of September 2009, SAP versions and environment.

**Response:**

The current SAP software platform consists of:

- SAP: ECC 6.0
- BW: SAP NetWeaver 2004s which is now called NetWeaver 7.0
- Portal: NetWeaver 7.0 SP14
- Solution Manager: NetWeaver 7.0

58.2 Please confirm the version of SAP CIS proposed to be implemented in 2011. Please expand on that version's original release date and if the proposed implementation will include any updates since the original release.

**Response:**

The entire SAP platform with the exception of CRM is based on the ECC 6.0 platform. ECC 6.0 became generally available (under the name ERP 6.0 on NetWeaver 7.0) in 2005. ECC 6.0 normal maintenance is scheduled to end Dec 31, 2015. There is an extended support available for ECC in 2016 and 2017 for an incremental 2% of annual licensing fee.

CRM 7.0 became generally available in 2008. Normal maintenance is scheduled to co-terminate with ECC 6.0 Dec 31, 2015. After that point all of SAP platform will follow the same extended maintenance window. This will avoid the potential cost of upgrading different components at different points in time.

In 2008, SAP announced a "7-2" maintenance strategy. The 7 refers to the number of years any major release will be maintained for the cost of the annual maintenance fees (also known as



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"mainstream maintenance"). The 2 refers to the number of years that an extended support for that version can be obtained for an incremental 2% of the annual licensing fee. Support after that timeframe, if required by a customer for some reason, is negotiated.

Based on the above, Terasen Gas has no plans to include any updates in its proposed implementation.

- 58.3 Please comment on the versions of the Company's other SAP products that will be operational at the time of the CIS implementation, and how they will interface.

**Response:**

Please refer to the response to BCUC IR1.58.2.

- 58.4 Please confirm the SAP policy and support end dates for the Company's SAP products.

**Response:**

Please refer to the response to BCUC IR 1.58.2.

- 58.5 Please confirm the total life-cycle costs have been included in the projected future O&M costs. Please identify where in the confidential spreadsheets these numbers can be located.

**Response:**

Yes, total life-cycle costs have been included in the projected future O&M costs needed to support the new SAP CIS platform. These costs include the labour for the technology and clerical support, administration and employee expenses, annual software licensing fees, and third party technology support costs. These costs are found in confidential spreadsheet 3 (2012 O-M Costs) in the O&M 2012+ tab on rows 24 to 41.





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- 58.6 Please comment on the Company's process for implementing a SAP system upgrade, specifically the percentage of work done by internal staff compared to SAP or other resources.

**Response:**

There is a standard SAP methodology for upgrading SAP which the Company follows. In the case of a pure technical upgrade, Terasen Gas estimates that approx 90% - 95% of all activities are conducted by internal staff. The additional 5% - 10% is typically an additional 1 or 2 local independent consultants to augment the TGI staff to cover events such as vacation coverage or if a particular area is heavily impacted in the new version and there is a significant amount of work required to be done in a short period of time to minimize the disruption to the business.

Historically, in cases where the driver for the upgrade is to take advantage of new functionality that are introduced into a module (e.g. materials management), the number of support provided from resources other than Terasen Gas staff can be higher depending on the complexity of the new functionality.

SAP customers have long expressed concerns with the need to conduct a costly upgrade to take advantage of new functionality in one area. With the implementation of ECC 6.0 (the version currently implemented at Terasen Gas) and onward, SAP has addressed the concerns of its customers by re-architecting its solution so that new functionality can be introduced via a different process known as enhancement packs without having to upgrade the entire SAP platform. To the best of its knowledge, Terasen Gas believes that SAP is the first major provider of ERP software to have introduced such capability. Terasen Gas expects that this capability will greatly reduce the costs of introducing new innovation into its SAP platform in the future.



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**59.0 Reference: MAINTENANCE**  
**Exhibit B-1, Chapter 5 Project Costs, Sec. 5.2 O&M Costs, p. 38**  
**Insourcing Alternative – Terasen**

**"A Way to Lower Software Maintenance Costs**

When SAP lifts the curtains next month on its Sapphire customer conference in Orlando, you can expect that the cost of enterprise software maintenance will be a topic much on customers' minds. Ever since SAP announced last July its plans to gradually raise maintenance prices from 17% of net software licenses fees to 22%, there's been an ongoing chorus of complaints, much to SAP's disappointment. The complaints boil down to this: What value will we get for this higher-priced product?"

<http://www.managingautomation.com/blog.aspx?id=245356>

- 59.1 Does the estimated \$46.26 million O&M cost of the Customer Care function for all of the Terasen Gas companies include the most recent increases in the SAP maintenance prices? If not, why not?

**Response:**

Yes, it does.



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**60.0 Reference: MAINTENANCE  
Exhibit B-4, Appendix C  
Insourcing Alternative – Terasen**

"It was imperative for Terasen to understand the total cost of ownership for the recommended solution, not only in terms of acquiring and implementing the solution, but also the costs related to ongoing support for the solution. Terasen believed very strongly that it is only the combination of all of the elements that an informed decision could be made." p. 10

60.1 Please provide a relative measure of the total cost of ownership for each of the two short listed solutions: Blue Heron installing an Oracle implementation and HCL Axon installing an SAP implementation.

**Response:**

Over a 20 year period, on a levelized cost basis, Terasen Gas estimates the total cost of ownership of the SAP / HCL Axon solution would result in an approximately \$0.89 lower Cost of Service per customer per year compared to an Oracle / Blue Heron. solution.

60.2 Please provide a relative measure of the costs related to the ongoing support for each of the two short listed solutions: an Oracle implementation and a SAP implementation.

**Response:**

By leveraging the existing SAP platform, Terasen Gas estimates the ongoing O&M costs to be approximately 25% lower for the SAP solution. Terasen Gas also estimates the cost of recurring capital (technical upgrades and hardware refreshes) to be approximately 50% lower for the SAP solution.



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- 60.3 For each of the overall solution criteria listed on page 12 of Appendix C, please discuss how the two short listed solutions: Blue Heron/Oracle and HCL Axon/ SAP satisfied each criteria.

**Response:**

For Product Vendor, the HCL Axon / SAP proposal was viewed to be stronger based on a much closer technical architecture / strategic fit for Terasen Gas.

For the SI Qualifications, Terasen Gas felt the HCL Axon / SAP proposal was stronger in all of the areas.

For the Work Plan, the HCL Axon / SAP proposal provided a significantly greater level of detail.

As for Pricing, the Blue Heron / Oracle proposal had a nominally lower implementation cost but was more than offset by the SAP solution's ongoing operating costs being lower for Terasen Gas.



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## CALL CENTRE

**61.0 Reference: CALL CENTRE**  
**Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec**  
**3.2.3 Customer Expectations Regarding Customer Service Delivery,**  
**p.43**  
**Communication Channels**

Terasen has stated that 50% of its call centre transactions fall into one of the following three categories: transfer service or turn service on/off, check account balances, and make special arrangements to pay account balances.

61.1 Specifically relating to these three categories of transactions what communication channels are currently available to customers?

**Response:**

All three of these functions are currently supported through the call centre. The only function that is also currently available through self serve either on the web or through the IVR is "check account balance".

61.2 Specifically relating to these three categories of transactions what additional communication channels will be available to customers under the preferred solution as proposed in the Application?

**Response:**

As proposed in the application all of these three options will be available via integrated e-mail, chat and web self serve.



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Terasen further states that the Angus Reid Strategies study identified that over 85% of Terasen gas customers expect to have the ability to start, stop or transfer their service using the Company's online channel?

- 61.3 If all the available functionality was activated, could the current version of the PEASE CIS software provide ratepayers with the ability to start, stop or transfer their service using the Company's web site?

**Response:**

To the best of TGI's knowledge the current version of the Peace CIS could not support a customer's ability to start, stop and transfer service using the Company's website via an automated process. It would be possible at an additional development and operational cost to create a non-integrated option which would require manual follow up in the back office. The incremental cost would be borne by the Company, and ultimately by customers.

- 61.3.1 If not would an upgraded version of the PEASE CIS software be able to provide these services to ratepayers.

**Response:**

Terasen Gas is not aware of any significant enhancements in this area related to later versions of the application. When Version 8.04 was implemented in 2008 Terasen Gas specifically requested that CWLP follow up with Peace to see if there was additional value that could be enabled. We were advised that there was no functionality available at that time.

- 61.3.2 If not is new CIS software as proposed in the Application necessary to enable customers to have this web based functionality?

**Response:**

Yes, the CIS software as proposed in the Application is necessary to enable customers to have this web based functionality. The technical architecture of the new CIS supports the migration of any online transaction to the web based on the Company's business requirements. Terasen Gas believes that the proposed solution will provide the most flexible platform to support customer self service in the future.



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**62.0 Reference: CALL CENTRE**  
**Exhibit B-4, Appendix Q, the Taylor Reach Group Sensitivity Analysis**  
**Communication Channels**

In Appendix Q a sensitivity analysis has been performed by The Taylor Reach Group, Inc. relating to the impact of alternative contact centre channels on the proposed solution.

The analysis notes that Terasen can expect an increase in the utilization of alternate contact channels as follows:

IVR self serve to increase by 9.7 percent to 26.9 percent of total contacts; and  
Email to increase from 2.9 percent of current contacts to 12.6 percent; and  
Chat (a new technology not currently deployed by Terasen) to represent 9.7 percent of total contacts.

The Analysis goes on to report that by shifting to the IVR, Email and Chat alternatives which reduce or eliminate the live agent element an estimated 18, 12, and 9 respectively, Full Time Equivalents ("FTE") could be removed from the labour requirements of the contact centre.

62.1 When does the Company expect the above noted increased in IVR, Email and Chat usages to materialize? By January 1, 2012 or some later date, please specify.

**Response:**

The increase in IVR, Email and Chat will not begin to materialize until after January 1, 2012. Terasen Gas will enable the functionality at that time. Customer adoption of these new communication channels will occur over time as systems stabilize and as customer awareness increases. The Company will begin promoting the alternative communications channels upon implementation of the project and will monitor adoption rates. By the end of 2012 we believe we will be able to more accurately forecast based on participation at that point.

62.1.1 Has the anticipated reduction of 39 Full Time Equivalents been factored into the Company's analysis of the preferred solution and included in the financial analysis reported in 'Cost of Service and Rate Impact Analysis' in Section 6.4 of the Application?



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**Response:**

The sensitivity analysis indicating an anticipated reduction of 39 FTE was provided for illustrative purposes only to indicate what may happen if customers adopt the new channels. These are not planned savings within the financial analysis in Section 6.4 of this Application. Please see the response to BCUC IR 1.62.1.2 for further explanation.

62.1.2 If not, what is the Company's reasoning for not factoring in the anticipated efficiencies?

**Response:**

The new communications channels will not be enabled until January 1, 2012. The extent of the efficiencies will be dependent on customer adoption rates, which at this time are unknown. Excluding these anticipated efficiencies produced a more conservative benefits analysis for this Application. Any efficiencies would be more appropriately handled through a future revenue requirements/rate setting process.

62.1.3 If these efficiencies were to materialize who would benefit from the reduced labour costs? Ratepayers, shareholders, or some form of sharing between the ratepayers and shareholders?

**Response:**

Assuming a standard rate setting/revenue requirements model is in effect in the future, customers will benefit from the resulting efficiencies through a reduction in future revenue requirements. If a PBR is in place in the future, the beneficiaries of any cost savings from these efficiencies would be dependent on the terms of the regulatory agreement in place at that time. This issue cannot be determined as part of this Application.





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- 62.2 What is the certainty of the estimate relating to increased utilization of alternate contact channels?

**Response:**

The sensitivity analysis was illustrative of what the impact would be. It was not a specific estimate based on quantitative analysis but rather a reflection of trends in call centres and in the utilities sector in particular. Based on market research and information available through third party publications, Terasen Gas is confident that these new communication channels will be attractive to some customers. Actual forecasted adoption rates are not available at this time.

- 62.3 What is the certainty of the estimated reduction in FTE if the increased utilization of alternate contacts materializes?

**Response:**

Please see the response to BCUC IR 1.62.2.

- 62.4 What is the probability that the estimated increase in utilization of alternate contact channels could be significantly higher resulting in an increased reduction in FTE in the future?

**Response:**

The information was indicative only and was not an estimate. It is possible that utilization of these alternate contact channels could be significantly higher or lower than was illustrated. However, Terasen Gas does not have specific data to determine the extent to which the illustrative estimate could be higher or lower.



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The Analysis in Appendix Q focuses on the impact of increased use of IVR self serve, Email, and Web chat; however, virtually no analysis or discussion is provided on the expected increased in the Company's web site usage as an alternative contact source.

62.5 Currently, what percent of total customer contacts is made through the Company's web site?

**Response:**

Today, Terasen Gas has very limited website functionality available for customers other than static billing, payment and rudimentary consumption history.

The following statistics indicate website use (please note, we have no way to determine how many of these 'hits' would have been in place of an inbound call). Unique visitors to the "Account Online" area of the website were 249,000 in 2008 and 206,000 in 2009 year to date. The Company believes most of these 'hits' today were customers looking at their monthly statement but who would in many cases be interested in using the site to process transactions or research their own inquiries if this functionality was available. Given the current use rate and customer research results provided in Appendix G, the Company believes these are good indicators of future participation in more self serve options on the web.

62.6 Due to customers changing attitude towards technology and the internet, what is the expected increase in the utilization of the Company's website to perform services that have traditionally been served by the call centre?

**Response:**

The Company has not forecasted a specific increase in the utilization of online services at this time, however, Terasen Gas anticipates that customers who prefer online service to the telephone channel will adopt the online services when they are available. Exhibit B-4, Appendix G, Terasen Gas Customer Service Enhancements Final Report, page 23 highlights that currently 24% of customers would most like to interact with Terasen Gas online through the Company's website.

As discussed in Exhibit B-4, Section 3.2.3, Customer Expectations Regarding Customer Service Delivery, page 43, the Company anticipates that the proportion of customers whose preferred method of interaction with the Company is online will increase over time. This shift will give rise to the opportunities identified in the passage quoted in the preamble to reduce labour requirements in the call centre, which in the Amended Application are based on current utilization rates for the telephone channel.



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- 62.7 Has the anticipated increased utilization of the Company's website, and resulting decrease in demand on the call center, been factored into the call center FTE projections? If not, why not?

**Response:**

No, the anticipated increase in utilization of web services has not been factored into the call centre FTE projections. The degree of utilization is not yet known. The approach of excluding this potential for greater utilization of web services yields a more conservative result in terms of assessing Project benefits. Future efficiencies are more appropriately addressed through a future revenue requirements process.



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**63.0 Reference: CALL CENTRE**  
**Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec**  
**3.2.3 Customer Expectations Regarding Customer Service Delivery,**  
**p.43**  
**Web site**

"While our customers' preferred method for interacting with the Company today continues to be reaching a live agent (first choice for 31%), this is followed by 24% of customers whose first preference is to interact with Terasen Gas via the Company's website"

63.1 What is the relationship between the Company's website and the proposed customer care enhancement solution?

**Response:**

The CIS system and call centre technologies that are proposed in the Customer Care Enhancement project provide the basis for improved online service options that will be delivered through the Company's website. The online functionality sought by a significant (and growing) segment of our customers is not possible without investment in a CIS system and call centre technologies.

63.2 With the proposed customer care enhancement solution will the functionality of the Company's website be increased? If yes how?

**Response:**

Yes, the CIS and call centre technology suite will together enable functional improvements to the Terasen Gas website. Examples include the ability for customer service through an online chat channel, online functionality for self service transactions such as move in / move out, and payment plan applications and improved access to customer consumption and billing history.

63.3 If yes, could the enhanced functionality of the Company website be supported through the current version, or an upgrade version, of the current PEACE CIS software?



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**Response:**

It is Terasen Gas' understanding that the enhanced functionality of the Company website would not be supported through a currently available version of the Peace CIS software.

- 63.4 Is new CIS software, as proposed in the Application, required to support enhanced functionality of the Company's web site?

**Response:**

New CIS software, as proposed in this Application, is required to support enhanced self serve functionality on the Company's website.



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**64.0 Reference: CALL CENTRE**  
**Exhibit B-4, Chapter 2 Project Description and Schedule, Sec 2.3.2.1**  
**Call Centre Components, p. 24, par. 4**  
**Exhibit B-4, Appendix N, Utilities Industry Benchmark Report, p. 28**  
**Exhibit B-4, Appendix P, In Province Contact Centre Strategy, p. 4**  
**Insourcing Alternative – Terasen**

In order to address the cost of alternatives, as required in section 3(ii) of the L-18-04 CPCN Application Guidelines, the most comparable cost would appear to be the cost per inbound call. This could be total inbound calls or just customer service inbound calls.

64.1 Please convert the call centre capital and on-going operating costs to a levelized cost per inbound call, based on the average estimated calls.

**Response:**

Terasen Gas does not believe cost per call is the most comparable cost nor is it a well established industry benchmark as assumed above. Please see the responses to BCUC IRs 1.64.2 and 1.64.3. The Company has however provided the calculation requested.

The calculated cost per inbound call based on average historical volumes is \$9.44 per call in 2013. This cost assumes all inbound contacts will continue to be handled via the traditional voice channel and that the volume and complexity of the calls will not be materially different in the future. This cost includes all of the ongoing variable costs including labour, technologies and facilities support. It does not include allocated capital.

Given the uncertainty regarding future call types and their volume, it is not possible to complete the calculation of a levelized cost that the Company feels is reasonable. For this reason, an average cost per call in 2013 was calculated instead. This cost is indicative of what the Company believes the cost per call will be in the short-term.

64.2 Please compare the cost per inbound call to the current CWLP levelized cost per inbound call.

**Response:**

The services provided by CWLP are priced based on the entire bundle: a cost per customer per year for all of the services. A comparison at the bundled level is provided in this Amended



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Application. Terasen Gas does not have access to the specific call centre capital and ongoing operating costs in order to perform the calculation requested.

Please also refer to the response to BCUC IR 1.64.3.

The cost per call as an industry comparison is not a well established benchmark in the industry. The comparability of cost per call is strongly influenced by a company's policies and business processes and is not comparable across different industry segments. The more commonly used call centre industry comparison across centres is labour rates or total compensation.

TGI's process to ensure that the call centre staffing costs are appropriate is discussed in the response to BCUC IR 1.81.1.

- 64.3 Please compare the cost per inbound call to other Canadian outsourced call centres.

**Response:**

Terasen Gas has not been able to find comparable cost per call information for other Canadian call centers either outsourced or internally managed. This information is not tracked by either the BC Call Centre Association or Contact Centre Canada. As a member, Terasen Gas has discussed the opportunity of surveying to capture this information in the future. Contact Centre Canada has included the data capture as an initiative for 2010.

Through the BC Call Center Association, Terasen Gas has also contacted several of the larger members. Although there is interest in the information it is not information that is currently tracked or disclosed.

- 64.4 Please compare the cost per inbound call to other Canadian insourced call centres.

**Response:**

Please refer to the response to BCUC IR 1.64.3.



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**65.0 Reference: CALL CENTRE**  
**Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec 3.2.2**  
**Evolution of Customer Service, p. 41**  
**Insourcing Alternative – Terasen**

"Value Add Applications - Customers are offered value-add self serve applications through IVR "

In the Ipsos-Reid study referenced in Appendix F, "participants also noted a universal dislike for Interactive Voice Response technology (IVR's)".

65.1 Please reconcile the Company's value add view and continued emphasis on IVR given the customer view of value offered by this technology.

**Response:**

The reference noted above regarding "Value Add Applications" is one of the seven best practices related to the use of electronic media that best in class organizations provide for customers as described by the Taylor Reach Group in Exhibit B-4, Appendix M, Toward a Multi-Channel Contact Centre. The discussion within the Amended Application notes that offering customers "Value Add Applications...through IVR ("Integrated Voice Response") and web channels" are outcomes of contact centre evolution from the 1970's to today as a result of technological advances in business and for consumers. The Company will offer a variety of contact channels to customers, enabling customers to conduct business with Terasen Gas through the channel that they prefer.

An IVR application serves a number of functions within the call centre. The most common use is the routing of calls via menu selection to ensure the call is directed to the best agent available to handle that particular inquiry. A second function is support for self serve. This has been limited to date but is expected to be enhanced through this Project. A third feature of this application which is not available today is the ability to request an automatic callback rather than waiting in the queue for the next available agent. Through the use of this feature a customer would not lose their priority in the queue but would receive an outbound call at the time their call would have been addressed had they stayed on the line.

While the focus group study conducted by Ipsos-Reid (Exhibit B-4, Appendix F, Terasen Gas Customer Care Research Focus Group Report) highlighted on page 6 the preference of one group of customers to reach a live person as quickly as possible, the following page of the report notes that there is a group of customers who would rather not speak to an agent. This is supported by further research reported in Exhibit B-4, Appendix G, Terasen Gas Customer Service Enhancements Report, page 22. When asked about contact with the Company in the past 12 months, 20% of customers reported they had interacted with Terasen Gas through the





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IVR alone. Although there is a segment of customers that prefer to move past an IVR quickly, there is also a segment of customers that prefer to avoid speaking with an agent. In 2007 and 2008, approximately 113,000 and 115,000 transactions respectively were handled by the IVR without agent participation.

Terasen Gas intends to provide various customer groups with the service channels they desire to use. This Project will enable functional improvement in alternative channels.



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**66.0 Reference: CALL CENTRE**  
**Exhibit B-4, Appendix P, In Province Contact Centre Strategy, p. 5**  
**Insourcing Alternative – Terasen**

"This information was then assessed against the current Work Rules for Terasen."

66.1 Please expand on the importance of the "current Work Rules for Terasen."

**Response:**

The current work rules for Terasen Gas refers to the current operating metrics, current average handle time by call type, and current average volumes. For example, billing inquiries currently are required to be answered in 30 seconds or less 75% of the time. These were the base assumptions in calculating the forecasted labour requirement.

66.2 Will the insourced call centre have different rules? If so, what will the impact be on required FTE?

**Response:**

Yes, Terasen Gas is expecting to implement different call centre service metrics in the insourced call centre. These are discussed in detail in Section 4.5.2.3 of the Application. An increase in service metrics would generally be expected to result in an increase in FTEs, all other conditions being the same. Terasen Gas believes the integrated solution proposed in this Amended Application will create adequate synergies to ensure that additional staff would not be required to achieve the targeted call centre metrics. The cost analysis in Section 6.4 does not anticipate an increase in FTE's to support this increase in service quality.



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**67.0 Reference: CALL CENTRE**  
**Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec. 3.2.3**  
**Customer Expectations Regarding Customer Service Delivery, p. 44**  
**Insourcing Alternative – Terasen**

"Today, Terasen Gas handles approximately 1.3 million inbound calls a year at call centres in New Brunswick, Ontario and Oregon. These volumes have been relatively stable over the past three years although there has been a shift in terms of communication channels. More customers are using the web as their preferred method of communicating with the Company rather than the more traditional phone channel."

67.1 Please provide the number of inbound calls by year for 2004-2008.

**Response:**

The table below shows the number of inbound calls by inbound queue for the period of 2004 through 2008. More discrete tracking related to other call types like new service calls are not tracked and reported today. New service calls are included in the billing inquiries queue.

	2004	2005	2006	2007	2008
Billing	955,291	900,168	933,574	931,088	939,875
Collections	249,107	207,350	211,597	205,867	220,145
Emergency	85,286	80,556	87,931	79,491	75,210
Total	1,289,684	1,188,074	1,233,102	1,216,446	1,235,230

Note: The billing inquiries total also includes the current IVR use.

67.1.1 Please provide a breakdown of the inbound calls by year for 2004-2008 by type of call (e.g. emergency, billing, new service).

**Response:**

Please see the response to BCUC IR 1.67.1.



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- 67.2 Given that more customers are using the web as their preferred method of communicating with the Company rather than the more traditional phone channel, does the Company expect the number of inbound calls to decrease over time?

**Response:**

Assuming approval of this initiative and the implementation of the multi-channel communications including enhanced web self serve, the Company would expect the number of inbound calls to decrease. Current website activity is discussed in the response to BCUC IR 1.62.5.

The static nature of the current website and the limited data access and transactional support available today has not resulted in a measurable reduction to date. In fact, it is likely that the current website generates additional calls as customers call to request information or billing changes. The Company believes this is a significant gap in the quality of service provided to customers today that will be addressed through the CCE Project.

- 67.3 Please provide the maximum and minimum number of inbound calls that proposed call centre will be capable of handling.

**Response:**

The staffing model used to support the staffing levels indicated in this Amended Application represents the maximum based on current average call volume. The model assumes enough contingency to support daily, monthly, and seasonal volatility including a factor for training sustainment. If the number of inbound calls were to increase significantly additional staff would be required. The space and infrastructure could be optimized to allow for additional capacity if required to support an increase of 12% to 15% through space consolidation and reconfiguration. Additional capacity could also be created through desk sharing for part time staff. Another opportunity that Terasen Gas will be considering in the longer term as an employee retention strategy is support for "At Home" agents. This is most successful for call centres that have high percentage of experienced staff. The Company does not believe that capacity constraints in the call centre will be an issue over the 20 year term of the analysis related to this Amended Application.

There is no minimum number of calls assumed in the model. Terasen Gas does not believe that calls volumes would ever approach zero. Realistically, depending on customer adoption of self serve, it may be possible over the very long term to see a 30% to 40% drop in call volumes. Through a flexible staffing model and normal call centre attrition, reductions of this magnitude over the long term would be able to be accommodated.



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- 67.4 Are there seasonal fluctuations in the Company's call volumes? If yes, please explain how the Company proposes to deal with seasonal fluctuations in call volumes?

**Response:**

Yes, call centre volumes are highly seasonal. This will be handled through the flexible staffing provisions of the new collective agreement and the ratio of full-time, part-time and temporary employees. Also, as is traditional in a utility call centre, the lower volumes are normally experienced over the summer during the non-heating period which coincides with the majority of employees preferred vacations.

- 67.5 If the web becomes the preferred method of communicating with the Company, will the call centres become obsolete? Please discuss.

**Response:**

Terasen Gas does not believe that the call centres will become obsolete. Rather, the call centres will evolve over time into a Contact Centre - a central point from which all customer contacts are managed, e.g. letters, faxes, live chat, emails and phone calls.

- 67.5.1 If the call centres have significant excess capacity or become obsolete how will the Company deal with assets that are no longer used and useful? How does the Company propose to deal with possible stranded asset costs?

**Response:**

As indicated in the previous response, Terasen Gas does not believe that the call centres will become obsolete. Rather, the call centre will evolve over time into a Contact Centre - a central point from which all customer contacts are managed, e.g. letters, faxes, live chat, emails and phone calls. In the event of the Lower Mainland call centre having excess capacity, some or all of the space will either be subleased or returned to the owner if feasible at the time.



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In the event that the Interior facility has significant excess capacity over the long term, the assets used to support these services will first be assessed to determine whether they can be used for another utility purpose. If the facility is truly no longer used for utility purposes, TGI anticipates that it will be sold. Under the *ATCO* decision, when assets that are no longer used for utility purposes are sold, the shareholder obtains any gain and bears the risk of losses. The analysis in *ATCO* holds that this treatment is fair because customers do not acquire a property interest in the utility assets by virtue of paying rates for service. TGI notes that, in the intervening period while the asset remains used for utility purposes, customers will have benefited from the use of the utility asset through lower rates (all else equal), since the option of purchasing the facility has been determined to be the most cost effective option.



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**68.0 Reference: CALL CENTRE**  
**Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec 3.2.3**  
**Customer Expectations Regarding Customer Service Delivery, p. 44, par. 1**  
**Insourcing Alternative – Terasen**

"approximately one third of respondents are willing to pay extra for enhanced consumption information"

The benchmark report in Appendix N references "the vision of the customer e-business centre of the future is to allow customers access to information at any time, from anywhere, in any form, and for free."

68.1 Please reconcile the two references.

**Response:**

These references are not directly related to one another. The first reference noted above is related to the potential introduction of automated meter reading and customer willingness to pay specifically for such an implementation. The question was asked to begin understanding customer perceptions of the value and importance of the enhanced consumption information that would result as automated meter reading would represent a significant change from the current customer meter reading experience with Terasen Gas and regional electric utilities. This is in contrast to an improvement to electronic contact channels that customers currently experience with other organizations and expect Terasen Gas to provide.

In the second reference, Benchmark Portal's Utilities Industry Contact Centre report (Appendix N), the discussion of allowing access to information "for free" speaks to providing customer access to electronic contact channels without a per-use fee for service. This is the model Terasen Gas and many other organizations operate under today. The report then discusses the importance of balancing the cost and performance of a contact centre, noting that investing too little can have negative business consequences as can as investing too much. Benchmark Portal goes on to note that finding the right balance is a challenge that represents the primary reason to benchmark a contact centre's performance against peers and best in class performers.

The Project's implementation will provide the Company direct management oversight and control related to contact channels and service quality. The Company's approach to service quality improvement is discussed in Section 4.5.2.3 of the Amended Application.



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**69.0 Reference: CALL CENTRE**  
**Exhibit B-4, Chapter 2 Project Description and Schedule, Sec 2.3.2.1**  
**Call Centre Components, p. 23, par. 2**  
**Exhibit B-4, Chapter 4 Analysis and Alternatives, Sec 4.3.2.2.1**  
**Staffing, pp. 79- 81**  
**Insourcing Alternative – Terasen**

"Based on current call volumes and service levels Terasen Gas is expecting to require a workforce of approximately 200 full time equivalent employees to support the call centre functions. This staffing estimate will be further validated through the CIS blueprinting phase of the CIS project as well as the design workshops that are planned related to the implementation of the call centre technology solution."

69.1 Please comment on the financial impact to the call centre project (labour, technology, facilities, etc.) should the final number be increased or decreased by 5, 10 or 20%.

**Response:**

The response to this IR is being filed confidentially under separate cover at the request of COPE, which considers the information to be sensitive. In accordance with Commission Letter No. L-83-09, intervenors representing ratepayer groups may request access to this confidential material by executing the standard undertakings of confidentiality.

69.2 Does the COPE agreement provide for hiring contract workers (in addition to part-time employees) until there is more certainty on the number of employees required in the call centres?

**Response:**

The response to this IR is being filed confidentially under separate cover. In accordance with Commission Letter No. L-83-09, intervenors representing ratepayer groups may request access to this confidential material by executing the standard undertakings of confidentiality.





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69.3 Please provide the number of proposed call centre staff by location.

**Response:**

Terasen Gas is proposing to split the call handling requirements approximately evenly between the two centres. The supporting staff will be housed in the Lower Mainland. Including both unionized and exempt staff, Terasen Gas is expecting to have approximately 100 staff in the Interior and 110 in the Lower Mainland.



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**70.0 Reference: CALL CENTRE**  
**Exhibit B-4, Chapter 4 Analysis and Alternatives, Sec 4.3.2.2.1**  
**Staffing, p. 79**  
**Insourcing Alternative – Terasen**

"the assumption of a traditional utility operating structure"

70.1 Please expand on the significance of this assumption.

**Response:**

The assumption that was used in the original staffing analysis conducted in conjunction with Taylor Reach Group assumed that the calls would be handled primarily through the traditional voice channel as they are today with limited IVR or online self serve. It also assumed that the current labour agreement would be similar to that in place with COPE for Terasen Gas in our other operating areas. This would result in loading and vacancy factors known at that time. The "In Province Contact Centre Strategy Report" in Appendix B was written in May of 2009 in preparation for the June 2009 filing. The number of call centre staff determined in June 2009 was 224 and was revised downward to 200 as a result of further refinement to the operating model.

70.2 What changes away from a traditional utility operating structure are potentially viable and what potential reductions in cost would they produce?

**Response:**

The changes to the traditional operating structure as defined in the Taylor Reach Group report that may impact staffing levels over the long term are:

- Impacts of the new COPE collective agreement,
- Impacts of customer preferences to move to less labour intensive communications channels including self serve,
- Impacts to business processes as a result of the change to the CIS that could impact call handle times both higher or lower for specific call types,
- Impacts of new programs and initiatives such as the Provincial Energy Plan and the Energy Efficiency and Conservation programs currently under development, and
- Possible regulatory and legislative changes that could impact the complexity of billing.



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At this time, until this model is operational it is not possible to reasonably assess the impact on cost. This is more appropriately handled in future revenue requirement applications.

Please also refer to the response to BCUC IR 1.62.1.



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**71.0 Reference: CALL CENTRE**  
**Exhibit B-4, Chapter 4 Analysis and Alternatives, Sec 4.3.2.2.1**  
**Staffing, p. 80, para. 4**  
**Insourcing Alternative – Terasen**

- 71.1 Have the number of call centre FTE been derived based on the services delivered today or have they been increased to handle additional marketing and sales activities such as alternative energy programs?

**Response:**

The number of FTEs has been derived based on the services provided today. They have not been increased to handle additional marketing and sales activities although the expectation (and assumption in the financial analysis) is that any additional calls related to marketing and sales activities such as alternative energy programs would be able to be supported with the planned number of FTEs. The Company expects some of the current capacity to shift to less labour intensive alternatives leaving capacity to support new business initiatives.



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**72.0 Reference: CALL CENTRE**  
**Exhibit B-4, Chapter 4 Analysis and Alternatives, Sec 4.3.2.2.1**  
**Staffing, p. 80, para. 4**  
**Insourcing Alternative – Terasen**

"a negotiated collective agreement with COPE to support having these services performed in British Columbia"

72.1 Are the terms of the COPE agreement with the Company likely to be adopted by other call centres in British Columbia with COPE employees?

**Response:**

The response to this IR is being filed confidentially under separate cover. In accordance with Commission Letter No. L-83-09, intervenors representing ratepayer groups may request access to this confidential material by executing the standard undertakings of confidentiality.



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**73.0 Reference: CALL CENTRE**  
**Exhibit B-4, Chapter 4 Analysis and Alternatives, Sec 4.3.2.2.1**  
**Staffing, p. 80, para. 4**  
**Insourcing Alternative – Terasen**

"Contact centre skills in the future will be different from the call handling skills required in traditional call centres, requiring a stronger focus on written communications skills."

73.1 Does the Company see other changing skill set requirements in addition to written communication?

**Response:**

The most significant changing skill set is written communication. The other key additions with the insourced model are regional knowledge, enhanced energy industry specific knowledge and the ability to provide timely training and education related to new programs and initiatives as required in the future.

73.2 What are the anticipated training requirements for the new call centre employees, in cost and timing? Are these replacement costs included in the on-going costs?

**Response:**

Terasen Gas is expecting new training for call centre employees to be approximately four weeks per new hire. Two to three weeks would be classroom style training and one to two weeks of on-call "supported" training. The Company plans to induct new call centre employees three times a year. Applications will be pre-screened and, for qualifying applicants, the qualifying candidates would be included in the next induction window. Depending on the number of new staff required, new hires will be grouped into classes for training to optimize the use of training facilities as well as instructor time. The instructors are planned as part of the current projected staffing for the call centre.

The costs to recruit and train new staff (replacement costs) are included in ongoing costs.



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- 73.3 There will be turnover in the call centre employees. How does the Company's previous experience with call centre employee turnover compare to the 14-16% referenced on page 41 in the benchmark report in Appendix N?

**Response:**

The 14%-16% turnover referenced on page 41 in Appendix N is an annual full-time agent turnover rate determined through this survey. To find a comparable experience Terasen Gas looked at the annual turnover rates for our full-time permanent Customer Service Representative positions including work leaders, located in our call center in Kelowna for the 3 years immediately preceding the decision to outsource. The Company's historical experience rates are as follows:

1999 3.0%

2000 2.6%

2001 2.6%

TGI believes that the collective agreement negotiated with COPE is an asset in attracting and retaining employees. Combined with Terasen Gas' position as a preferred employer in BC the new agreement will assist in ensuring that our turnover rates remain at a manageable level. Given the nature of call centre employees in general the Company does expect our experience rate in the call centre in the future to be higher than we experienced with our workforce in Kelowna.

- 73.4 What is the timing to replace a call centre employee, including training? What is the assumption in the FTE count for this churn? Have the incremental costs for human resource services, above the normal for the Company, caused by the greater than average turnover, been included in the operating costs in Table 6.2?

**Response:**

With the expectation that turnover will be higher in the call centre than the average Utility experience, the Company is planning to maintain open external job postings for these positions. As applications are received they will be pre-screened to identify viable candidates. To maximize efficiency, training would only occur once a reasonable class size is required. Normally this would be a minimum class size of 10 – 12 employees. Training for a new employee is expected to be approximately 10 – 15 days of classroom training and 5 - 10



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additional days of side by side supported training on the phones. The Company is anticipating two or three inductions per year.

Incremental human resource services are included in the budget to cover these additional costs post go live and are included in the operating costs in Table 6.2.

For the purposes of this analysis Terasen Gas has assumed an annual turnover rate in the call centre of 10 to 15%.





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**74.0 Reference: CALL CENTRE**  
**Exhibit B-4, Chapter 4 Analysis and Alternatives, Sec 4.3.2.2.1**  
**Staffing, p. 81**  
**Insourcing Alternative – Terasen**

- 74.1 Assuming introduction of self serve IVR or Web, Email and Chat channels, what are the applicable cost reductions with respect to space, furniture, technology, supervision, etc. in addition to the labour cost reductions in Table 4.1? Have layoff and/or severance costs been included in the cost/benefit?

**Response:**

This response is provided to the Commission confidentially under separate cover. In accordance with Commission Letter No. L-83-09, intervenors representing ratepayer groups may request access to this confidential material by executing the standard undertakings of confidentiality.

- 74.2 Assuming the three changes in service channels, what would be the total additional reduction to the levelized cost per customer for this project, or has that already been factored into the \$72.60 cost per customer in 2013 referenced on page 7 of this Application?

**Response:**

This response is provided to the Commission confidentially under separate cover. As this response contains information regarding labour arrangements that TGI anticipates will be commercially sensitive for COPE, this response should remain confidential.



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**75.0 Reference: CALL CENTRE**  
**Exhibit B-4, Chapter 4 Analysis and Alternatives, Sec 4.3.2.2.2**  
**Facilities, p. 81**  
**Insourcing Alternative – Terasen**

"The Company has determined that two call centre locations are required to support a fully redundant and geographically separate environment. One of the key services supported by the call centre is inbound emergency inquiries. As is currently the case, it is critical that Terasen have the ability to redirect calls to a fully equipped and skilled workforce in the case of a major interruption in service. To achieve this objective Terasen believes two sites are required with a minimum of 20% of all emergency calls being handled in an alternate location, ensuring that this unique skill set is maintained by staff in both locations. If the primary call centre site is unavailable or impaired, all emergency calls would be seamlessly redirected to the other site to ensure no interruption in service. The site and location analysis support Terasen's requirement for a fully enabled, real time disaster recovery site."

- 75.1 Please expand on the requirement for a fully redundant call centre, including identification of the types of events that are driving this decision by the Company.

**Response:**

In order to provide sustainable and uninterrupted service to customers, Terasen Gas believes that two call centre facilities are required to support a fully redundant emergency call handling environment. These two facilities must be significantly far apart to reduce the likelihood that a specific event or disaster will impact both sites at the same time. The types of events that could cause one of the two centres to be inoperable would be for example an earthquake in the Lower Mainland or a significant flood, storm or fire in the Interior.

- 75.2 What is the incremental cost of having the redundant second call centre?

**Response:**

As a point of clarity, the second call centre will be fully operational in supporting customer calls. As discussed in the response to BCUC IR 1.75.6, the two call centres operate in tandem, with calls being routed to the next available agent regardless of location. The term 'redundancy' refers to the fact that should the primary call centre be out of service for any period of time, customers will be minimally impacted, as calls will be handled through the second call centre;



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and vice versa. This is common practice within the utility call centre industry, as housing all call centre agents within the one call centre facility creates a risk of service failure.

In terms of the two call centres identified by the Company whose costs are included in the Amended Application, there are few costs associated with the proposed operation of the call center located in the BC Interior that would be avoided if only one call centre was established in the Lower Mainland. The only material costs that would be avoided if this call centre was not established would be the cost of the land and building to purchase it. All other costs, such as those to complete tenant improvements, the installation of the necessary furniture and tools so that it can be used by employees, and operating costs, would continue to be incurred if these employees were consolidated into the call centre proposed for the Lower Mainland.

In order to consolidate all call centre employees in a single location, like the proposed call centre located in the Lower Mainland, it would require TGI to lease additional space. Assuming the same amount of space is needed as it is proposed for the second call centre, then the financial analysis indicates that the cost to set up and house all call centre and billing operations staff in the same call centre as that proposed for the Lower Mainland would result in a slightly higher cost on a levelized basis. Given the assumptions made to complete this analysis however, the Company is of the view that the cost to establish and operate either two call centres as set out in the Amended Application or just one in the Lower Mainland are roughly comparable.

- 75.3 Please provide data on how other utility companies in British Columbia, Canada, and the United States handle the similar call centre requirement.

**Response:**

There are different models for handling emergency call handling redundancy. Terasen Gas surveyed Canadian gas utilities of comparable size (Enbridge, Union and ATCO) as well as BC Hydro. These utilities have all centralized to two discrete centers for emergency response, which is the model Terasen Gas is proposing in this application. The other options that Terasen Gas has observed are: (i) the use of local phone number redirection assuming a branch operating structure, (ii) the use of third party outsourcers, which is more common in the electric industry where outages are a more significant issue in terms of volume, and (iii) more recently, the use of at home agents who are not required to travel to an office. Smaller utilities may also use technology to divert calls to portable cell phones handled by individuals. Terasen Gas believes that the model proposed is the most appropriate model for the size, scope and complexity of the Terasen Gas system.



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- 75.4 Please expand on why a second site would be located in the Interior of British Columbia.

**Response:**

The reason for locating the second site in the interior was to ensure that it would be very unlikely to be impacted by a major disaster in the Lower Mainland. The locations are significantly geographically separate.

Please refer to the Amended Application (Section 4.3.2.2.2 Facilities) for additional discussion relating to the choice of locations for the Call Centres.

- 75.5 What is the number of gas emergency calls today, and has the second call centre been sized to handle 100% of those calls? Is the second call centre simply to handle gas emergency calls?

**Response:**

Of the approximately 1.3 million calls a year that are handled in the call centre today, approximately 85,000 of these are emergency calls. The operating model anticipates having all call types handled in both locations so that we have full redundancy. Calls will be routed based on skill set, not location. Any CSR who is skilled in the subject matter could take the call regardless of which call centre they work out of or where the call originated. This will ensure that we have fully trained staff at both call centre locations. The number of CSR's will be approximately the same at each of the two sites.

- 75.6 Please explain how the calls will be seamlessly redirected to the second call centre if a significant event disables the primary call centre. Please explain how the Company's total infrastructure will continue to operate such that the secondary call centre can be useful.

**Response:**

The call centre configuration is virtual. All calls that come into the centre will be automatically routed to the next available appropriately skilled CSR regardless of location. The primary hardware and software will be housed in the Lower Mainland and, the key components will be



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replicated in the secondary site in Prince George. Each of these locations will be configured to run independently of the other location. If there is a failure at the primary site, the secondary site will immediately and automatically take over and perform the same critical routing functions as the primary centre. Conversely, if the secondary site fails all of the capacity will be routed through the primary facility. It will be seamless to both the customer and the call centre staff. The software and configuration will be duplicated at both sites and all agents will be equally trained. There is no direct, dependant connectively between the two sites.

- 75.7 Please expand on how the emergency calls would be routed to the specific call centres when there are two operating call centres. Are these just calls to a specific "emergency" telephone number? If it requires operator intervention, how does this affect the concept of first contact resolution?

**Response:**

There are two generally published phone numbers for Terasen Gas. The first is an emergency only number and the second is the general call centre number which includes "Emergency" as the first option through the IVR. Both numbers terminate in the call centre. An emergency call coming through either of these source numbers will be routed automatically to the next available skilled call handler regardless of location. It does not matter which of the two original numbers the customer called. The call centre technology will determine the first available skilled CSR, so operator intervention is not required.



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**76.0 Reference: CALL CENTRE**  
**Exhibit B-4, Chapter 4 Analysis and Alternatives, Sec 4.3.2.2.2**  
**Facilities, p. 82**  
**Insourcing Alternative – Terasen**

"As well, the Company believes that regional knowledge is a significant factor in ensuring customer service quality."

76.1 Please explain the Company's view of regional knowledge.

**Response:**

Regional knowledge refers to familiarity with the communities, characteristics and relevant events related to Terasen Gas' service territory. This includes such factors as current weather, local economic and employment conditions, changes in provincial policy, and availability of Company programs that are offered only in certain areas. Regional knowledge also assumes an understanding of the BC regulatory environment, familiarity with rate design and energy options in the province and the geographic characteristics of the BC gas supply landscape. Terasen Gas believes that having call centres located within the Province will ensure that the representatives are well versed in these matters.

76.2 Please provide the percentage of the Company's customers that are located closer to each of the two proposed call centres.

**Response:**

The majority of customers will be located closer to the lower mainland call centre, approximately 90%. Inbound calls will not be centre specific but will be distributed automatically through the technology based on skill set and availability regardless of where the customer is calling from. The staff at both call centres will be well versed in the regional knowledge that is outlined in the response to BCUC IR 1.76.1.



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**77.0 Reference: CALL CENTRE**  
**Exhibit B-4, Chapter 4 Analysis and Alternatives, Sec. 4.3.2.2.2**  
**Facilities, p. 85**  
**Insourcing Alternative – Terasen**

"In summary, based on a very competitive real estate market and our ability to attract and retain skilled labour, Terasen is recommending that the primary call centre location be in the Lower Mainland, facilitated through a long term lease arrangement. The Company is proposing that the secondary site be located in the Interior where we have identified a cost-competitive building for purchase, which can be equipped and configured to Terasen Gas' specifications at a reasonable cost."

77.1 Why should the utility customer fund the learning curve of the Company's employees to acquire the expertise to develop and maintain call centres when this knowledge is available in the private sector?

**Response:**

Please see response to BCUC IR 1 77.2.

77.2 What is the benefit to the Company's customers if the Company's employees acquire call centre expertise?

**Response:**

Terasen Gas believes that the call centre is critical to providing quality customer service to customers. It is our major point of customer contact and represents the face of the organization. As a critical interface it is important that all Terasen Gas employees appreciate and support this function. The Company's non-call centre staff will not be expected to gain expertise in the technologies but will be expected when necessary to provide direction and support in handling complex inquiries. The call centre work group will also be instrumental in communicating topics of interest and concern back to utility operations for investigation or improvement.

The cost of training call centre employees is required in all call centre operations, regardless of who operates them. As the call centre industry continues to evolve, there will continue to be opportunities to learn and apply new technologies and best practices. This is a necessary component of running a customer focused call centre environment.

With respect to the reference in the question in BCUC IR 1.77.1 to "available in the private sector", Terasen Gas is an investor owned utility and does operate in the private sector.



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Terasen Gas thus assumes that the question references the availability of call centre employees in the call centre industry. It is Terasen Gas' intent in staffing the management requirements of the new call centres to recruit the majority of the required resources from the marketplace. As a result of recent events within the Province, there is significant availability of skilled resources due to the closure of a significant number of other call centres. It is important to note, however, that a part of the training for these employees – i.e. the "learning curve" – will be training in issues of particular relevance to Terasen Gas customers such as developments in energy policy and energy alternatives, and energy efficiency and conservation offerings. Developing this expertise to enhance the overall customer experience is an important aspect of the Project.

The customer service function contemplated in this Amended Application is designed to serve the customers of the regulated company. As such, it is a legitimate cost of the utility and should be borne by ratepayers.

As a result, customers will benefit from receiving an appropriate level of service directed to resolving their enquiries.

Terasen Gas' believes that the solution proposed in this Amended Application is the most flexible and cost effective for ratepayers. Having skilled call centre staff is key to providing the quality of service this initiative will deliver. The rationale supporting the in-sourcing decision in terms of the validation process is further described in the response to BCUC IR 1.81.1.

- 77.3 Why would it not be more appropriate for unregulated companies such as Terasen Inc. or Terasen Energy Services to acquire the expertise and develop and maintain call centres?

**Response:**

Please see the response to BCUC IR 1.77.2.

- 77.4 Please confirm that Terasen Gas corporately has not been in the business of designing, building, owning, operating or managing call centre facilities. Please identify any exceptions with respect to Terasen Gas corporately.





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**Response:**

Not confirmed. Up until 2002, Terasen Gas did manage call centre activities internally for the interior customer base. All call centre activities were centralized in 1998 when the Kelowna center was designed and built. Terasen Gas also operated a smaller call centre on Vancouver Island until March of 2006. It is correct that the Company has not operated a call centre since that time.

Related to this Project, Terasen Gas has also engaged industry expertise both related to the business model and the facilities to ensure that the design is appropriate. Facilities experts will be engaged to design and build the call centre facilities. The ongoing maintenance will be managed by the Company's existing facilities employees. Management resources with call centre experience will be hired to run the proposed call centre operations. These steps will position Terasen Gas well to implement and operate the call centres effectively, as it has done in the past.

- 77.5 Please confirm that the role that the Company envisions will make it necessary for the Company to develop or otherwise acquire expertise in the design, construction, operation and managing call centre facilities.

**Response:**

Confirmed. Please see the response to BCUC IR 1.77. 2.

- 77.6 Please explain how the Customer Care Enhancement Project is being managed, and provide an organization chart for the project that shows each of the Company's employees and outside services individual involved.

**Response:**

Terasen Gas intends to manage the Customer Care Enhancement Project as a Program. It is critically important to distinguish between Project Management and Program Management. The former refers to the management of agreed tasks and milestones with a defined set of budget and time constraints. Program Management, on the other hand, refers to the complete design, build and operation of a total business solution. Indeed, Project Management is simply one sub-set of the Program Management Approach.



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HCL AXON has developed a nine-part Program Management approach, which has been designed not only from HCL AXON's experience of managing over 400 complex change programs, but also incorporates input and learning from organizations such as the Institute of Project Management, The Strategic Planning Society, Gartner Group and the Best Practice Club. For details on the methodology that is intended to be followed, please refer to Confidential Exhibit B-3, Tab 3, HCL Axon response to RFQ, Attachment VI, HCL Axon's Work Methodology, and Section 13 Project Governance PP 113-120.

With respect to a Program Organization chart at the level of detail requested, this is typically created as part of the Program Preparation phase of the Program. Program structures typically change during the course of the program into project streams that reflect the integrated nature of the solution and where the program is in its lifecycle. As an example, within the CIS Implementation project, the functional teams change into tactical teams like the testing team, the documentation team, the training team, etc.

At a high level, the two diagrams below represent the structures and key roles of the program streams for the CIS. For the first diagram (Diagram 1), this is a high level representation of the Overall Program Governance, from Program streams to Program management to Steering Committee.

Diagram 2 represents the Program management and Program streams in greater detail and illustrates the Program streams from both a functional view and an integrated process view.

To incorporate the call centre logistical activities, Terasen Gas intends to expand the scope of the technology stream and incorporate all activities associated with the preparation of the facilities and technical infrastructure. This work stream will be led by a Terasen Gas resource. The back office billing process activities will be incorporated into the applicable process streams. The call centre technology implementation stream will be added and jointly managed by Aspect and Terasen Gas personnel. All third party consultants besides those specifically listed below should be considered Terasen Gas resources for the purposes of the diagram.

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**Diagram 1 – Program Governance Model**

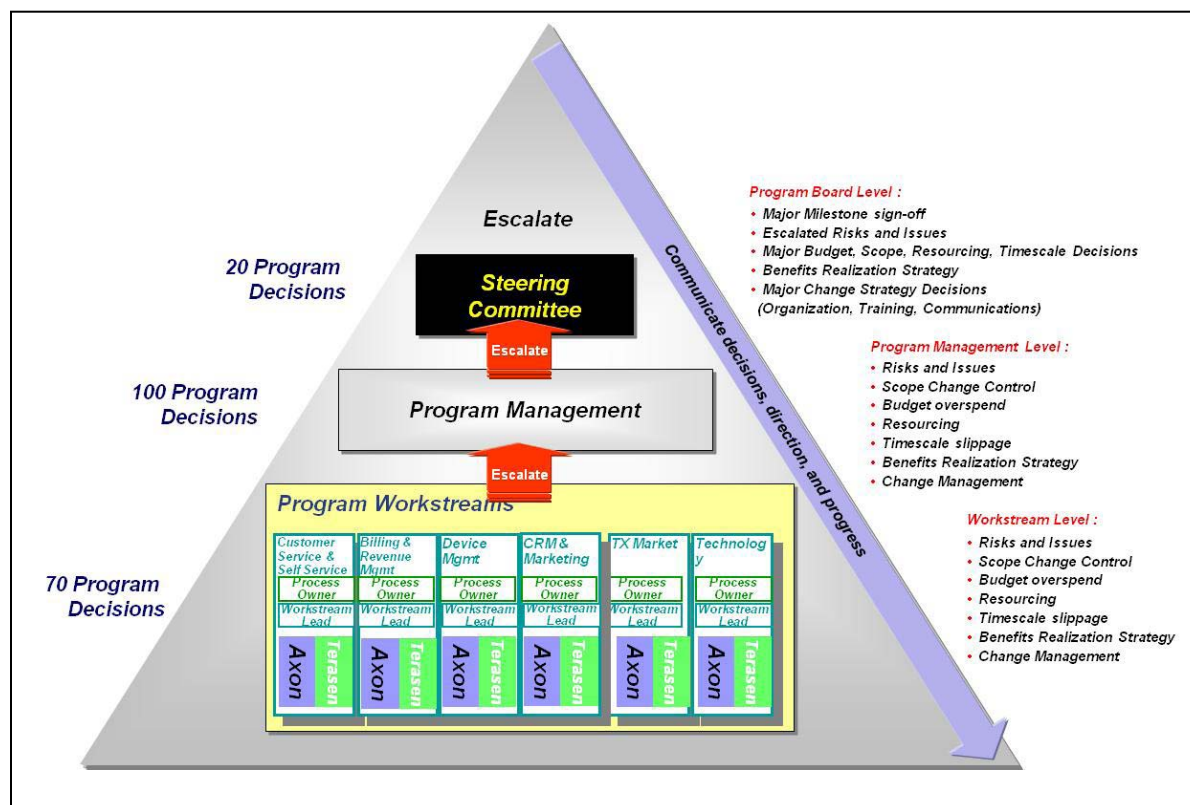
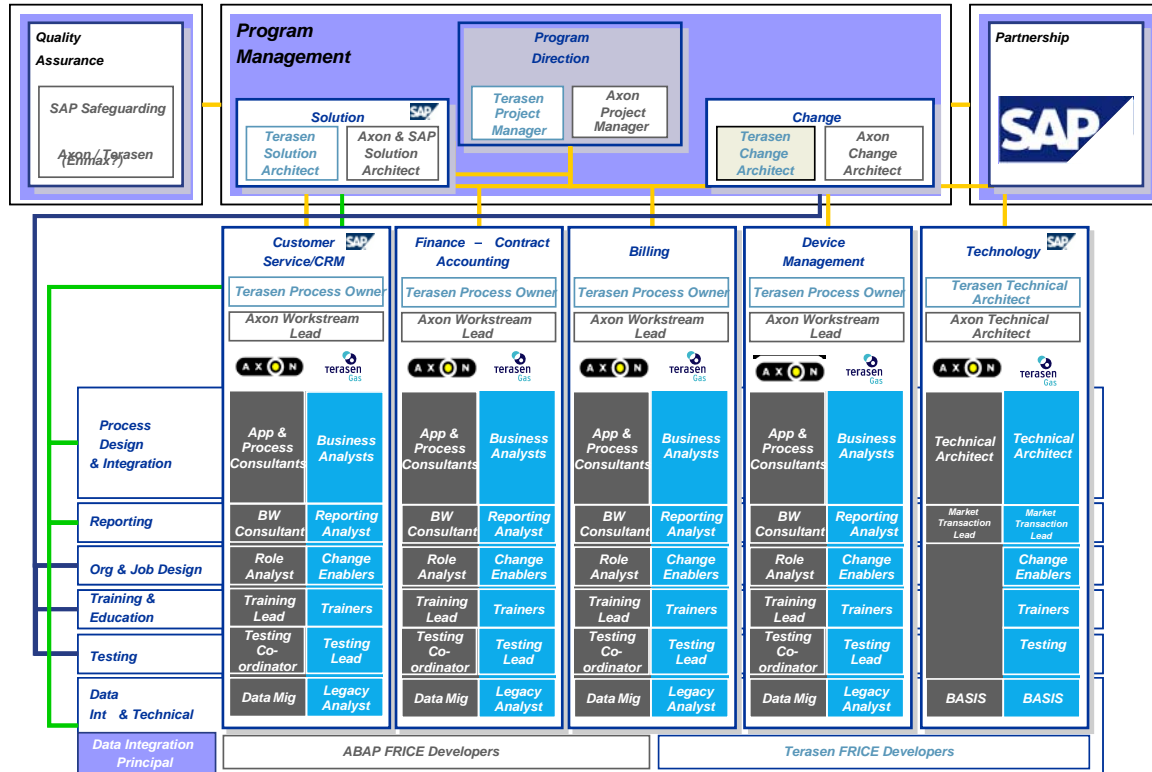


Diagram 2 - Functional View of Customer Care Program



77.7 Please identify all utilities on the North American continent where the local gas distribution company owns and operates call centre facilities.

### Response:

Terasen Gas understands that the majority of utilities in North America own and operate call centre facilities. Please refer to Figure 3.1 on page 48 of the Amended Application which provides survey data from UtilitPoint. It indicates that in 2009 less than 12% of utilities have outsourced call centre activities based on a UtilitPoint survey of more than 200 North American utilities. The survey does not distinguish between gas and electricity distribution utilities, as the distinction between gas and electricity utilities in this context is not particularly meaningful. The survey also does not identify particular utilities by name. It would be a considerable undertaking, with material cost to customers, for Terasen Gas to duplicate UtilitPoint's survey in respect of all gas utilities in North America, and Terasen Gas does not expect the results would materially



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differ from the UtiliPoint survey. Accordingly, Terasen Gas has not undertaken that additional work.

- 77.8 Please discuss the pros and cons of an alternative model for the project whereby the call centre facilities would be owned and operated by some other party, such as CWLP, Accenture Utilities Business Process Outsourcing Services or an independent third party.

**Response:**

Terasen Gas believes that an in-house call center is critical to providing long term service quality to customers. The potential benefits of outsourcing are offset by the significant challenges of managing service quality through an outsourced arrangement. The call centre is a primary point of contact and often the only direct communication that a customer has with the Company. It is more than the processing of a simple transaction or request.

A detailed analysis of the current best practices in outsourcing is included in Appendix B – UtiliPoint International Inc – Outsourced Customer Service Models in the North American Utility and Beyond. These best practices are discussed in detail in the response to BCOAPO IR 1 6.2. The two key best practices related to call centre services are:

1. Emphasize the call centre recognizing that a model, customer focused call centre that operates seamlessly, with motivated and well equipped and trained employees is essential to supporting and coordinating all of the business services and processes to meet internal and external customer needs.
2. Recognizing that providing customers with flexible options to interact with the Utility is the key to being customer centric.

Based on the Company's experience to date, our assessment of the pros and cons of an alternative scenario whereby call centres only would be outsourced to an independent third party is discussed below:



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#### **PROS OF OUTSOURCING CALL CENTRE:**

- High focus on operating efficiency through the strict management of call handle times and productivity factors such as calls per day. This is achieved through a high reliance on standard scripting.
- Competency in business process documentation and scripting to support the management of call handle time.
- The costs of facilities and infrastructure would be the responsibility of the outsourcer and would be embedded in the transactional service costs.
- The costs of hiring and training would be the responsibility of the outsourcer and would be embedded in the transactional service costs.
- Mitigation costs associated with delivery failure are borne by the outsourcer.

#### **CONS OF OUTSOURCING CALL CENTRE:**

- Where compensation for the outsource provider is fixed, efficiency improvements can be expected to financially benefit the outsource provider, rather than customers.
- Limited focus on quality beyond the specific metrics in the contract.
- Any improvements in service quality will be at an additional cost to Terasen Gas and customers.
- All changes to services or the addition of new services would be at an additional cost.
- Service levels are viewed as the maximum as well as the minimum. There is no perceived value to exceeding service levels unless there is a trigger for additional revenue..
- Outsourced call centers typically have higher turnover rates than in-house centers which impacts the quality of customer service.
- The knowledge of and control over business processes are still required by the Client and would need to be funded as an additional cost to the outsourcing contract.
- Business processes handoffs are required to transfer complex inquiries to the appropriate work group in the Utility, e.g., metering, billing, refund processing and fieldwork dispatching resulting in delays and errors in processing and impacting service quality.



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- All transactional costs as well as additional costs to implement change would include the provider's expected profit margin over all costs, whereas the Company's shareholder only earns a fair return on the portion of the Project that is in rate base.
- A utility will be one of many clients of the outsource provider and may be impacted by the competing interests and priorities of other clients in a shared resource model.
- Intellectual capital regarding customer issues and customer requirements is captured and held by the outsource provider. There is a risk of a knowledge gap developing between an organization and its customers.
- In an outsourcing model an internal management structure and expertise would still need to be maintained to interface with the outsource provider and facilitate any changes required to support new business.
- Significant training would be required to implement the process changes needed to support the new SAP CIS application.
- Additionally, new call centre technology is required to meet the objectives set out in the Amended Application related to enhanced communication channels and self serve.

Terasen Gas believes that it is in the best interests of ratepayers to implement the strategic sourcing model and insourced call centre service as opposed to continuing with the current arrangement or pursuing another outsourcing provider as the challenges and issues would be similar.

77.8.1 Please list and discuss the ways in which the arrangement identified in the previous question would reduce the risks of the project to the Company's ratepayers.

**Response:**

Please refer to the response to BCUC IR 1.77.8.



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- 77.9 Will the Interior building for purchase contain excess land not required for utility purposes?

**Response:**

Please refer to BCUC IR 1.97.1.

- 77.10 Please confirm that the Company's shareholders are entitled to any gain on the sale of excess land and discuss with respect to the decision by the Supreme Court of Canada in ATCO Gas & Pipelines Ltd. v. Alberta (Energy & Utilities Board), 2006 SCC 4.

**Response:**

As indicated in the response to BCUC IR 1.97.1, there is no excess land. Please refer to BCUC IR 1.95.1 regarding any hypothetical future disposition of land that is no longer used for utility purposes.





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**78.0 Reference: CALL CENTRE**  
**Exhibit B-4, Chapter 4 Analysis and Alternatives, Sec 4.3.2.2.3**  
**Technologies, p. 86**  
**Insourcing Alternative – Terasen**

"It was also determined through this process that both of the short listed integrated solutions satisfied Terasen Gas' complete functional requirements and were capable of meeting Terasen's current and future business needs."

78.1 Please expand on the Company's required future business needs.

**Response:**

In the context of the call centre, future needs include online chat, integrated web support and integrated inbound / outbound calling capabilities. These are alternatives that are not available to Terasen Gas customers today. Please refer to Appendix M of the Amended Application which provides the Taylor Reach Report – Toward a Multi-Channel Contact Centre for an industry study on changing customer preferences in the call centre. Also please see the responses to BCUC IR 1 62.1 through 1.62.6.

Terasen Gas believes that these technologies can be applied in the future to address customers' increasing preferences for alternative communication channels as well as providing support for the delivery of new programs in the future.



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**79.0 Reference: CALL CENTRE**  
**Exhibit B-4, Chapter 6 Project Cost, Sec 6.1 Updated Information**  
**from the June 2, 2009 Application**  
**Insourcing Alternative – Terasen**

- 79.1 Are there any costs to be incurred in the cancellation of services under the CWLP contract, such as employee severance or un-depreciated assets, as well as for the transition of services to the Company? Are these included in the project costs of this Application?

**Response:**

The only costs to be incurred in undertaking a Scope Change as contemplated in this Amended Application are the transition costs. For a discussion of the transition costs please see the responses to BCUC IR 1.7.5 and BCUC IR 1.7.5.1.



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**80.0 Reference: CALL CENTRE**  
**Exhibit B-4, Chapter 6 Project Cost, Sec 6.3.1 Updated Ongoing O&M costs, p. 112**  
**Insourcing Alternative – Terasen**

"For the purpose of providing a summary of future costs to support the new customer care function, the Facilities Support component provided in the table above includes the cost of the expected lease of the Lower Mainland Contact Centre. This lease will not, however, be treated as an operating expense, but rather as a capital lease when the cost of the lease is incurred. Terasen Gas believes that once this lease is negotiated it may be treated as a capital lease. This treatment was also selected because it results in a more conservative impact on the cost of service than if it was assumed to be an operating lease."

80.1 Please provide a comparison of the two methodologies showing which has the more conservative impact on the cost of service.

**Response:**

The treatment of the expected lease for the CCE Project will not be known until a lease agreement is negotiated. The terms of the lease agreement and the application of the accounting standard to the specific terms of the agreement will determine whether the expected lease for the CCE Project is classified as an operating or capital lease and the applicable costs will be reflected as such.

The operating and capital lease treatments provide similar impacts to the cost of service over the 20 year period. The operating lease will impact the cost of service through the lease payment as well as through depreciation, income tax expense and earned return which are a result of leasehold improvements that affect rate base. The capital lease will impact the cost of service as a result of the changes to rate base (plant additions & leasehold improvements and long term debt) and correspondingly affect depreciation, income tax expense and earned return.

A present value calculation of the annual cost of service estimates shows that the capital lease increases the cost of service over the operating lease by approximately \$0.9 million over the 20 year period. Being the highest cost estimate, it was deemed that the capital lease cost of service was the conservative option to include in the total project costs for the purposes of this Application. Upon finalization of the lease agreement, if the applicable accounting standard results in operating lease treatment, then the costs of the Project will be updated accordingly.

Attachment 80.1 provides the cost of service comparison between the two approaches for a 20 year period.



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80.2 Please comment on the IFRS implications.

**Response:**

The IFRS treatment of the expected lease for the CCE project will not be known until a lease agreement is negotiated. The terms of the lease agreement and the application of the current IFRS standard to the specific terms of the agreement will determine whether the expected lease for the CCE project is classified as an operating or capital lease.

From a general perspective, as noted in the TGI RRA, although the IFRS standard on leases (IAS 17) is very similar to the current Canadian standard, a pending change to the standard will result in substantially all leases requiring capital lease treatment from the lessee's perspective. For this reason the Company has treated the lease as a capital lease in the Amended Application.



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**81.0 Reference: CALL CENTRE**  
**Exhibit B-4, Appendix N, Utilities Industry Benchmark Report, p. 27**  
**Insourcing Alternative – Terasen**

81.1 How do the Company's anticipated on-going costs for call centre staff, technology, telecom and other compare to the average utility industry percentages?

**Response:**

This response is provided to the Commission confidentially under separate cover. In accordance with Commission Letter No. L-83-09, intervenors representing ratepayer groups may request access to this confidential material by executing the standard undertakings of confidentiality.



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**82.0 Reference: CALL CENTRE**  
**Exhibit B-1, Appendix B Utilipoint Outsourced Customer Service Models**  
**Insourcing Alternative – Terasen**

- 82.1 Please comment on the data in the table at the end of section V which appears to recommend outsourcing the Call Centre.

**Response:**

At the time that this study was commissioned in early 2008, Terasen Gas was looking for industry information and trends related to customer care outsourcing and what model would be more appropriate going forward. The general recommendation relating specifically to outsourcing best practices and call center services in particular is noted below:

*"Emphasize the contact center recognizing that a model, customer-focused call center that operates seamlessly, with motivated and well-equipped and trained employees is essential to supporting and coordinate all of the business services and processes within meter to cash and who meet every need of internal and external customer."*

In Terasen Gas' view the ability to meet the stated best practices of seamless operations including a labour force that has the desired level of energy industry and regional knowledge makes this best practice unachievable under the current model. Although this may not be the case in other industries or even for other utilities where business processes are simpler or where degree of change within the organization is lower, Terasen Gas does not believe we can achieve the level of service necessary in the future with an outsourced call centre regardless of the outsourced provider. There are also legal implications associated with the right of first refusal under the Client Services Agreement with CWLP. Please refer to the response to BCUC IR 1.7.3 in this regard.

- 82.2 Please confirm the Company accepted the deliverable from Utilipoint per Section VIII.

**Response:**

Yes, Terasen Gas accepted the deliverable from UtiliPoint per Section VIII.



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**83.0 Reference: CALL CENTRE**  
**Exhibit B-1, Appendix P In Province Contact Centre Strategy, p. 10**  
**Insourcing Alternative – Terasen**

"This pricing data was broken down to isolate Equipment Costs, Software Costs, and Implementation/ Professional Service costs as well as ongoing Maintenance costs and upgrade costs (based upon 2 upgrades over 5 years)."

83.1 Please confirm the number of upgrades to the call centre technical equipment included in the twenty year project cost analysis.

**Response:**

The Company interprets that the reference to call centre technical equipment refers to such items as desktops, servers, and communication equipment. Terasen Gas' standard for replacing desktop computers is every four years and all other equipment every five years. This would represent the two upgrades over five years and these have been included in the 20 year Project cost analysis.

Terasen Gas plans to manage any necessary upgrades to the call centre software in a similar manner outlined in the response to BCUC IR 1.23.1. It is Terasen Gas' intent to run the version of software implemented until such time as the vendor will no longer support the software or that newer versions of the software contain functions and features that Terasen Gas requires.

In the cases where the vendor will no longer support the version of software installed and based on the information provided during the evaluation process, Terasen Gas feels that the cost to provide technical upgrades to the call centre software would likely be minimal and that the majority of the effort would be done by in-house support staff. The cost of this maintenance requirement is included in the IT support costs that are part of future O&M.

If Terasen Gas decides to upgrade to a newer version of the software based on new functional functions or features, it is the expectation that this upgrade would be business cased separately.



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**84.0 Reference: CALL CENTRE**  
**Exhibit B-1, Appendix Q Taylor Reach Group – Sensitivity Analysis,**  
**p. 2**  
**Insourcing Alternative – Terasen**

"Likely adoption rates of emerging and alternate contact centre channels over the next 3 to 5 years."

- 84.1 Many of the Company's current and future clients utilize "texting" as a communication tool. Please comment on the potential use of "texting" in a call centre environment and whether the Aspect Software would accommodate its use.

**Response:**

From a call center perspective, "Texting" can be considered either a form of email or chat. As both e-mail and chat are within the scope of the technologies included in the call centre RFQ, "texting" will be supported.





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**85.0 Reference: CALL CENTRE**  
**Exhibit B-4, Chapter 2 Project Description and Schedule, Sec 2.3.2.1**  
**Call Centre Components, p. 23**  
**Outsourcing Alternative – CWLP**

"This will be reflected in an improvement in service quality for customers as Terasen will have direct control over both staff training and the scripting and business processes inherent in the new CIS."

85.1 Please describe the existing contractual arrangement and explain why Terasen does not have control over staff training, scripting, and business processes.

**Response:**

The current outsourcing arrangement specifically outlines the services to be provided under the Client Services Agreement. It is not explicit with respect to how these services are to be delivered as long as the service metrics are achieved. The contract is based on outcomes and metrics and, although the Company can provide input on scripting and messaging, we neither hire nor train the staff, nor can we influence the sufficiency of training and expertise of personnel. Terasen Gas does have a right to audit under the agreement and does so in critical areas. The Company also has the ability to (and has) request copies of training material and scripting when required to investigate escalations.

As part of the outsourcing decision in 2001, the majority of the management workforce who historically had responsibility for staff training and overseeing the day to day business processes were transferred to the outsourcer as part of the employee transfer agreement. The expectation was that these employees would continue to work as they had in the past in reviewing these processes to ensure they continued to provide benefit to customers. Internally Terasen Gas did not anticipate the level of internal staffing required to provide the level of control and oversight necessary to sustain service quality including direct control over staff training, scripting and business processes. The expectation at that time was that the Company would provide more administrative oversight rather than operational direction. The subsequent decision by the outsourcer to move the majority of the work out of province has not only resulted in the replacement of the original Terasen Gas management staff, it has also impacted the Company's ability to effectively exert more direct control.



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85.2 Other than potential incremental cost, what prevents the Company from requesting this level of service?

**Response:**

The Company could request an increased level of service through the current arrangement. However, TGI does not believe it would be in customers' best interest to do so for three main reasons.

First, Terasen Gas does not believe that the level of service we require would be able to be provided consistently through the current outsourcing arrangement regardless of the cost. For example, the skill necessary to handle the complexity of the majority of the billing and back office work as well as the criticality of regional and energy knowledge in the call centre is not easily acquired through outsourcing. This is what the Company means when it says in the Amended Application that the current model is not sustainable.

Second, cost is an impediment. Terasen Gas' expectation is that, in order for any outsourcing provider to truly meet the expected level of service associated with the proposed Project, the outsource provider would have to essentially implement the equivalent steps as contemplated in the Project. It would then add a profit margin to the total cost of providing that service, over and above the Project cost that the Company has determined. The Company will, by contrast, only earn the allowed return on the equity portion of the Project cost that goes into rate base, and O&M costs are simply flowed through to customers. For this reason, TGI believes that the Project is more cost effective than obtaining a similar level of service from a third party provider.

Third, the Company believes that insourcing these critical functions is more flexible than an outsourcing arrangement, and will facilitate the Company's ability to respond to future changes in customer expectations and industry trends in a more timely manner. Changes required in the future including most regulatory, legislative and operational changes will be supported through internal staff and will therefore be able to be prioritized to reflect the importance to the Company and customer.

For these reasons, TGI believes that attempting to achieve the benefits of this Amended Application through the current outsourcing arrangement simply by invoking change orders is not achievable.



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- 85.3 Has the Company attempted a scope change with CWLP to make changes to these processes?

**Response:**

No, the Company has not attempted a scope change with CWLP to make changes to these processes. Refer to the response to BCUC IR 1.85.1 for a discussion of why this action was not pursued.



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**86.0 Reference: CALL CENTRE**  
**Exhibit B-4, Chapter 2 Project Description and Schedule, Sec 2.3.2.1**  
**Call Centre Components, p. 24**  
**Outsourcing Alternative – CWLP**

"In particular, the current environment does not support the transition to a multi-channel platform in the future such as integrated email support or online chat."

86.1 Did the Company investigate whether CWLP or its sub-contractor (Accenture) has any plans to upgrade its call centre systems to provide a multi-channel platform?

**Response:**

No, the Company did not investigate whether CWLP or its sub-contractor has any plans to upgrade its call centre systems to provide a multi-channel platform. The Client Services Agreement can be characterized as being results-based, meaning that it provides for a defined scope of services and a supportable and sustainable technical platform. It does not require the outsourcer to implement upgrades other than to meet the service metrics and conditions of the Agreement. It has not been the practice of CWLP or its sub-contractor to propose upgrades that are not specifically requested by the Company.

Accenture, the sub-contractor, did upgrade its base call centre technology in 2006 to move to a voice over IP (VOIP) platform. Although it is Terasen Gas' belief that this was a successful initiative in terms of technology standardization and stability, the upgrade did not result in additional functionality for customers.



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**87.0 Reference: CALL CENTRE**  
**Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec 3.1.3**  
**The Project Will Help TGI Respond to the Evolving Business Environment, p. 37**  
**Outsourcing Alternative – CWLP**

"Representatives that understand regional issues and their implications when working with customers"

87.1 Did the Company investigate with CWLP the ability and cost to have specific call centre staff trained as required by the Company?

**Response:**

Please refer to the response to BCUC IR 1 85.3.



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**88.0 Reference: CALL CENTRE**  
**Exhibit B-4, Chapter 3 Project Justification: Drivers for Change, Sec**  
**3.2.2 Evolution of Customer Service, p. 41**  
**Outsourcing Alternative – CWLP**

"Communication options that allow customers to contact companies at any time."

88.1 Are CWLP agents available on a 24/7 service basis?

**Response:**

CWLP agents are available 24 X7 only for emergency call handling.

88.2 Did the Company investigate with CWLP the ability and cost to have options such as e-mail and chat added as service options?

**Response:**

Please refer to the response to BCUC IR 1 86.1.



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**89.0 Reference: CALL CENTRE**  
**Exhibit B-4, Chapter 4 Analysis and Alternatives, Sec 4.3.2.1**  
**Continue to Outsource Call Centre Services, p. 79, par. 1**  
**Outsourcing Alternative – CWLP**

"The customer care functions are currently wholly outsourced and this provides an indicator of the cost of continuing to outsource these services. Terasen Gas does not feel it appropriate to ask third party outsource service providers to go to significant time and expense to prepare a quotation in a context where Terasen Gas does not believe there is a reasonable chance that we would award the contract. As well, pursuing an RFQ in order to simply obtain benchmark costing in a context where Terasen Gas has decided to bring most of the services in house, raises potential impediments under the Client Services Agreement. Under the CSA, CustomerWorks LP enjoys a right of first refusal to match any quotation that Terasen Gas may choose for the provision of all of the services."

89.1 If the Company were to request costing from third parties to provide the level of specialized, local utility knowledge, low employee turnover, multi-channel service anticipated under this project, and assuming the cost is less than embedded in this project, what is the downside should CWLP agree to provide the required call centre services for that lower cost, utilizing whichever CIS is chosen by the Company? Would this not be in the best interests of the ratepayers?

**Response:**

As noted in the reference above Terasen Gas is limited in its ability to go out to market for third party costing. However, even on the assumption that the Company were able to go out to market for the type of specialized services required with the specific requirement for local utility knowledge, low employee turnover and an expanded suite of multi-channel capabilities, TGI still believes that the Project would be cost competitive and in the best interest of customers.

First, the Company expects that any respondents, including CWLP, would have to cost the services based on a similar in-province solution to that which Terasen Gas has put forward. Terasen Gas believes, by virtue of the benchmarking and competitive costing of each component of the Project, that the total package solution we have put forward is market competitive.

Second, any third party outsource provider could also be expected to include a profit margin in addition to the direct cost of providing the services. By contrast, the Company only earns the allowed return on the Project components that are added to rate base, not O&M.

Further discussion related to this question is provided in the response to BCUC IR 1.85.2.



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- 89.2 Has the Company considered joining a Call Centre Association? Please identify the Call Centre Associations that exist throughout Canada. Please identify the statistical information that is provided to association members such as cost per call and call centre employees per 1,000 customers.

**Response:**

Terasen Gas is a member of the BC Call Centre association and has also applied to become a member of the Canadian Contact Centre Association. It is our understanding that each province has its own association. The purpose of these organizations is to share operating experiences, best practices and discuss local issues and opportunities. Neither of the associations noted above captures and tracks specific financial information from their members such as cost per call. The Canadian Contact Centre Association has a current initiative to begin collecting this type of information from members on a voluntary basis beginning in 2010.





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**90.0 Reference: CALL CENTRE**  
**Exhibit B-4, Chapter 4 Analysis and Alternatives, Sec 4.3.2.2.3**  
**Technologies, p. 85**  
**Outsourcing Alternative – CWLP**

"Call centre technologies have evolved significantly over the past 10 years to become integrated interaction product suites, capable of addressing emerging customer preferences for self-serve and electronic communications channels such as e-mail and chat."

90.1 How do the call centre technologies provided through the CWLP contract compare to the technology described?

**Response:**

To the best of TGI's knowledge, the call centre telephony technology in place for CWLP is from Avaya and was implemented in 2006 in order to take advantage of VOIP "Voice over Internet" technology. For this component Terasen Gas believes this is comparable to the telephony solution the Company has selected through the RFQ process. Terasen Gas does not know what if any other technologies might be available to complement the Avaya telephony implementation in terms of the integration of optional multi-channel capabilities. The project implementation documentation provided to Terasen Gas related to this initiative indicated it was for telephony only.

90.2 Have the CWLP call centre technologies been refreshed on a regular basis? Has the Company had discussions with CWLP with respect to the potential upgrades to their supplied call centre technologies?

**Response:**

The only significant call centre technology change that the Company is aware of is the implementation of the Avaya telephony solution in 2006 as noted in the response to BCUC IR 1.90.1. The Company is not aware of any other updates or refreshes. Terasen Gas has not had discussions with CWLP with respect to potential upgrades as the call centre services being provided are believed to be supportable and sustainable as is required under the Client Services Agreement in order to deliver the services originally contracted for.



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**91.0 Reference: CALL CENTRE**  
**Exhibit B-4, Chapter 4 Analysis and Alternatives, Sec 4.5.2.3 Service**  
**Quality Improvement Strategy, pp. 99-100**  
**Outsourcing Alternative – CWLP**

"Service metrics within the current arrangement were negotiated in 2001 and were assumed at that time to remain relatively static based on historical experience. The design of the current outsourcing agreement as well as the outsourcer's operating model are based on this assumption. Due to the cost implications of either improving the performance targets or increasing the number of metrics, the contracted metrics have remained largely unchanged. One new metric that was introduced in 2007 was a specific metric to capture customer satisfaction related to the call centre experience. This was introduced to support a more balanced approach to service quality in the call centre between internal quality criteria and the overall customer experience."

91.1 Have there been changes to the outsourcer's operating model since 2001?

**Response:**

Terasen Gas believes there have been many changes to the outsourcer's operating model since 2001, although we are only advised of material changes that generally result in the relocation of work. The Client Services Agreement, which is results oriented, does not provide the Company with the ability to influence these organizational changes other than potentially through the scope change process. Examples of significant changes that we are aware of include:

- the closure of the Kelowna call centre in 2004 and the relocation of the complex billing work from Vancouver to Toronto and Fredericton,
- the subsequent relocation of back office billing to Manila in 2006, and
- the temporary establishment of an Oregon call centre in 2007/2008.



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- 91.2 What was the cost to implement the call centre metric in 2007? What have been the benefits of the new metric?

**Response:**

The new call centre metric established in 2007 was at no cost to Terasen Gas. The negotiation of this metric was beneficial to both organizations.

The addition of third party verification to measure customer satisfaction was a benefit to customers and provided an independent measure. For the outsourcer the new metric reduced its penalty risk as the existing penalty was divided between the internal call quality metric and the new third party customer satisfaction metric. The outsourcer did not take on additional penalty exposure and in fact was able to spread the same exposure over an additional factor.

The benefit to customers of this new metric is that it provides better insight into the customer experience as well as providing an independent assessment of call quality. It has also allowed the Company to get insight into other key call centre metrics including first call resolution.

The contract structure assumed that the costs paid for services were reasonable compensation for the risk to the outsourcer, in this case the financial exposure to penalties. Going forward, the Company could negotiate additional changes in metrics either through increased funding or a reduction in penalties associated with the current metrics.



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## 92.0 Reference: CALL CENTRE

**Exhibit B-4, Appendix M, Taylor Reach – Towards a Multi-Channel Contact Centre, p. 19**

**Exhibit B-4, Appendix F, Ipsos Reid – Terasen Gas Customer Care Research Focus Group Report, p. 6**

### **Staffing**

"In the past agents were expected to have excellent verbal communication skills. The new breed of agents; however, must also be capable of written communication. In many cases an email from the contact centre is considered a legal document hence the requirement for agents to be able to write documents in clear language with proper wording and grammar. Although templates are used in many instances it is still essential that agents possess or be trained for proper written communication.

In fact organizations are urged to start looking at their recruiting, hiring, training, and coaching in a new light in order to create a complete and successful workforce." (Exhibit B-4, Appendix M, Taylor Reach – Towards a Multi-Channel Contact Centre, p. 19)

"Customers want knowledgeable representatives with the authority to act. However, most organizations have very high turnover rates in their call center operations making it difficult to meet customer expectations. Thus, employee retention and education are critical factors for any customer service organization." (Exhibit B-4, Appendix F, Ipsos Reid – Terasen Gas Customer Care Research Focus Group Report, p. 6)

92.1 Based on the statements above, the labour force required for the Terasen insourced call centre will require a labour force with a greater skill set than is currently required for the Accenture call centre. What research has been performed by the Company, or its consultants, that supports the availability of 200 qualified call centre FTE in the Lower Mainland and Prince George, and how does the Company plan to attract and retain them?

### **Response:**

Please refer to Appendix R (Market Location Report) in the Amended Application for a report conducted by The Taylor Reach Group. The analysis included a broad range of municipalities across Western Canada and determined a short list of areas that would meet the needs of both the primary and secondary call centre locations. Included in the criteria was the availability of a skilled work force. For the primary centre the required skill set was expected to be higher as this location was also targeted to support the more complex management functions of a call



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centre including scheduling and workforce management, quality assurance, call forecasting and knowledge and training management.

The results of the location assessment indicated that the Lower Mainland was a viable candidate for the primary centre and Prince George made the short list of suitable locations for the secondary center.

The Company's recruitment strategy is currently being developed and may be different in each of the two locations depending on local circumstances. The Company is looking at local job fairs, web recruitment strategies and opportunities working with local post secondary institutions. Terasen Gas believes that the flexible collective agreement negotiated with COPE will be attractive to potential call center staff and will be a key factor in ensuring staff turnover will be manageable. The agreement was specifically designed to provide an attractive compensation structure to appeal to the unique preferences of a call centre work force.

Terasen Gas' staff turnover experience is discussed in the response to BCUC IR 1.73.3.

- 92.2 Will it be necessary to use the assistance of employment recruitment agencies in order to fill some of the more senior positions for the call center and billing and back office operations?

**Response:**

Terasen Gas believes that it has the skills internally within the Company's Human Resources area to recruit the necessary skills for most of the senior positions in the call centre and billing and back office operations. In the case where a suitable candidate is not identified the Company may use the assistance of an employment recruitment agency. Terasen Gas does not believe that the costs for these services, if required, will be significant as this is not the intended recruitment approach.

- 92.3 If yes, what is the estimated cost for these services and have they been included in the total project cost of \$122 million?



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**Response:**

The total recruitment cost including internal labour and external communications and recruitment expenses is estimated to be \$497 K. This amount has been included in the Project cost.

92.4 Please provide details of Terasen's retention rate versus Accenture's.

**Response:**

Terasen Gas' average annual corporate turnover rate applicable to full-time employees over the past four years is 4.5%. A recent Canadian Contact Centre Study sites an average annual turnover rate of 29.9% for call centre activities. For outsourced call centres the average rate is significantly higher at 38.6%. The Company does not have direct knowledge of Accenture's current turnover rate for staff supporting the services provided to Terasen Gas but we have no reason to believe it would differ materially from the industry average for outsourced centers as outlined above.



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**93.0 Reference: CALL CENTER**  
**Exhibit B-4, Chapter 2 Project Description and Schedule, 2.3.2.1 Call**  
**Centre Components, pp. 23-24.**

- 93.1 Annually, how many queries are currently handled at the Terasen call centers outsourced to CWLP/Accenture, and how many are handled through telephone channels?

**Response:**

The number of telephone inquiries handled annually by the outsourced call centres is provided in the response to BCUC IR 1.67.1. Few written mail and fax inquiries are currently received; however during 2007 the outsourced call centre handled approximately 20,000 email inquiries. This number grew by 30% in 2008 to approximately 26,000.

- 93.2 Please provide a list of services currently provided at the Terasen Gas call centers outsourced to CWLP/Accenture?

**Response:**

The specific services provided by CWLP / Accenture related to call centre activities are described in detail in the Client Services Agreement, Schedules A and D (Appendix L of the Amended Application). These include inbound calls, correspondence and customer escalations for emergencies, inquiries and collections.

- 93.3 In addition to telephone and IVR, what communication channels are available to ratepayers at the Terasen call centers currently outsourced to CWLP/Accenture?

**Response:**

In addition to telephone and IVR, the outsourcer currently provides support for email response and written correspondence. These are manual processes and not integrated into the call centre technology environment.



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93.4 For each of the call centre services currently provided to ratepayers what communication channels are currently offered?

**Response:**

For those services identified in the schedules to the Client Services Agreement (see Appendix L) the following channels are currently provided:

- Emergency response
  - Telephone
- Collection Services
  - Telephone (inbound and outbound)
- Billing and general inquiry services including escalations
  - Telephone
  - Email (Manual process)
  - Letters and correspondence (Manual process)

Please see the response to BCUC IR 1.93.5 for a discussion of how these channels will be expanded under the Project.

93.5 Under the preferred solution as proposed in the Application what additional call center services will be available to ratepayers?

**Response:**

The key additional call centre services that will be supported through this Project include:

- Expanded educational services related to regional topics and programs,
- Inquiry support for new initiatives such as energy efficiency programs,
- Automatic and agent assisted enrolment services for payment plan and marketing programs,





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- Automated request for call back option for customers who do not want to wait for the next available CSR,
- Real time management escalations and transfers to utility experts for complex inquiries, and
- Advanced IVR and self serve options including access to consumption and premise information, billing and program participation history, additional self directed transactional services, access to qualifying offers and the ability to direct inquiries to Utility experts on specialized topics.

These additional services will provide customers with better access to information and the ability to conduct business with the Company on their own schedule.

93.6 Under the preferred solution as proposed in the Application, which of the services currently provided at the call centre are expected to have increased functionality on the Company's web site?

**Response:**

The following services currently provided at the call centre are expected to have increased functionality on the Company's web site. These services are enabled by the integration of the new call centre technologies, SAP CIS and an in-house operational support environment.

- Customer moves / account information changes,
- Payment plan enrolments / changes,
- Payment reporting,
- Requests for historical information and brochures,
- Access to consumption information, and online tools to enable customers to analyze their consumption.



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The solution will also provide a platform which supports the ability to migrate other CIS transactions to the web as these services are requested or required.

The CCE Project will provide these and other additional benefits (as discussed in the Amended Application, Section 4.5.2, and in the response to BCUC IR 1.93.5) to customers that are not available under the current model.

- 93.7 In each of 2012, 2013, 2014, 2015 and 2016 how many queries are expected to be handled at Terasen's proposed in house call centers? Please provide a breakdown between the Prince George and the Lower Mainland locations by year, including the number of expected queries by anticipated communication channel.

**Response:**

For the purposes of this Application Terasen Gas has assumed that call centre costs would increase only in response to customer growth. This has been built into the model. All call volumes are assumed to increase by the same proportions so it was not necessary to forecast specific volumes. Escalation factors to address future call handling requirements for the introduction of new programs or changing customer needs or to reflect changes in customers preferred communication channels were not incorporated into the model. TGI provided a sensitivity analysis in Section 4.3.2.2.1 on page 81 of the Amended Application on the effect of changing customer preferences for contact channels on call centre labour requirements.

In terms of the allocation of calls by site, the call centre environment is virtual. Calls will be routed to the next available skilled agent regardless of location. As such it is not appropriate to estimate the call volumes specific to a location. For 2012 the call distribution is expected to be evenly distributed between the two sites.

Any variance from the baseline presented in this application related to call centre due to changes in the business needs or customer preferences are best addressed through future revenue requirements.

Please refer to the response to BCUC IR 1.62.1 (including 62.1.1 through 62.1.3) for further discussion regarding communication channels.



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- 93.8 Currently at the Terasen call centers outsourced to CWLP/Accenture what percentage of calls are considered an emergency call?

**Response:**

On average 7.5% of inbound calls are emergency calls.

- 93.9 When would the public call 9-1-1 rather than the call centre?

**Response:**

Terasen Gas would expect a customer to call 9-1-1 rather than our call center in cases where there is a real or perceived immediate threat to personal safety. This would not be the case for gas odours and CO alarm detectors for example.

- 93.10 Is there a dedicated phone number to report a potential gas leak? If yes are these calls handled through the Terasen call centre outsourced to CWLP/Accenture?

**Response:**

There are two published phone numbers a customer can call. One number is dedicated to emergency situations and the other is our general call centre number, where the first option provided to customers is emergency assistance. Both are configured to route emergency calls and both are handled by CWLP/Accenture.



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**94.0 Reference: CALL CENTER  
Exhibit B-4, Chapter 2 Project Description and Schedule, 2.3.2.1 Call  
Centre Components, pp. 23-24  
Facilities**

- 94.1 When evaluating call center locations did the Company consider government incentives that may be available to Terasen for providing employment opportunities in remote locations or economically depressed communities?

**Response:**

Yes, local and provincial incentive opportunities were identified through the Taylor Reach Group Inc – Market Location Report in Appendix R. Most of the specific municipal incentives focused on construction and new development incentives targeting specific areas depending on current economic conditions in those areas.

The more general labour and job creation incentives that were identified were also reviewed and determined to be not applicable to our business.



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**95.0 Reference: CALL CENTRE**

**Terasen Gas Inc. Application for Approval of the Sale of Vacant  
Land at 3700 2nd Ave, Burnaby, B.C ("Lochburn Land Sale"), p. 14  
Cost/Benefit Analysis**

"The sale of the land at Lochburn that is no longer used or required for utility purposes will have no detrimental effect on the provision of natural gas service, now or in the future. Natural gas service by TGI will continue to be reliable, safe, and efficient after disposition of the 7.67 acres. Terasen Gas submits that customers do not acquire any proprietary right in the Company's assets through the payment of rates. Terasen Gas, rather than its customers, purchased the property, holds legal title to it, and therefore is entitled to any gain on its sale."

- 95.1 Given that "Terasen Gas, rather than its customers, purchased the property, holds legal title to it, and therefore is entitled to any gain on its sale," should shareholder be responsible for the entire cost of the purchased facility in the Interior? Please discuss.

**Response:**

Customers, and not the shareholder, should be responsible for the cost of service of the purchased facility in the Interior.

The facility will be utilized for the provision of a sustainable customer care service that is of direct benefit to the customer. The provision of this service is no different in this respect from the delivery of gas through a distribution system. In addition, the facility is a replacement service for the existing outsourced customer service arrangement that ratepayers currently pay for today. This service will continue to be delivered in the future, albeit through an insourced model. The cost recovery model should continue to be the same as the existing agreement. That is, the ratepayer should be responsible for all prudently incurred costs that the Company incurs in the development and delivery of this service.

The premise in the question that the potential for the shareholder to gain on the sale of assets that are no longer used to provide service means that the shareholder should incur the entire cost of the facility is directly contrary to the Utilities Commission Act and the Supreme Court of Canada's decision in *ATCO*. The Utilities Commission Act provides in section 59(5) that rates are unjust or unreasonable if the rate is "insufficient to yield a fair and reasonable compensation for the service provided by the utility, or a fair and reasonable return on the appraised value of its property." In the *ATCO* decision, the Court made it clear that the cost of operating the utility and providing service to customers, plus an opportunity to earn a fair return, is to be recovered from customers. The premise presented in the question, by contrast, suggests that the customers should not pay for the prudently incurred costs of providing service.



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As a final comment, TGI notes that under the *ATCO* framework, the shareholder is only entitled to gains, and only bears the risk of losses, on utility assets that are removed from utility service. The Lochburn property (referenced in the preamble) was removed from utility service as part of the approval of sale and the full carrying value removed from rate base. Customers only ever paid economic rent on the rate base carrying value of the property while it was used to provide utility service. Thus, the shareholder was legally entitled to the residual proceeds of sale.

The call centre facility in question will be used to provide utility service for the benefit of customers. TGI has proposed acquiring a facility for the call centre because it is the most cost effective option for customers, not because of any long term potential to sell the property for a gain (or loss) if at some hypothetical time in the future it is no longer required to provide service to customers using that facility.

If in response to this Application the Commission approves the disposition of the 7.67 acres, the Company will prorate the proceeds on sale, net of costs, on a basis consistent with the original rate base cost treatment, i.e. 79.93% to regulated operations and 20.07% to non-regulated as shown in a sample calculation in Appendix C. Customers will benefit from the rate base reduction of \$1.136 million. Further, strictly without prejudice and without waiving any of its rights, the Company will include \$5 million of the remaining portion of the net proceeds in its calculation of earnings to be shared under PBR, resulting in a net benefit to customers of \$2.5 million. This provides an estimated total economic benefit to customers of more than \$3.6 million inclusive of the rate base reduction on which future rates will be based. Terasen Gas is prepared to make this concession to customers to preserve the currently contemplated transaction and to obtain expedited approval. Terasen Gas does not believe this treatment is required under PBR.

95.2 If the ratepayers finance the purchased facility in the Interior, is the Company willing to share any gain on the sale of excess land with the ratepayers?

**Response:**

As indicated in the response to BCUC IR 1.97.1, there is no excess land. Please refer to BCUC IR 1.67.5.1 regarding any hypothetical future disposition of land that is no longer used for utility purposes.



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**96.0 Reference: CALL CENTRE**  
**Sustainment - Application Support Services, Data Center Operations**  
**Letter L-08-04 'CPCN Application Guidelines' clause 3(ii)**  
**Cost/Benefit Analysis**

Pursuant to BCUC Letter L-08-04 a CPCN application should contain, "[A] study comparing the cost, benefits and associated risks of the project and alternatives, which estimated the value of all of the costs and benefits of each option or, where not quantifiable, identifies the cost or benefit and states that it cannot be quantified."

- 96.1 In the Application there is no mention of any studies or quantitative analysis performed to evaluate the outsourcing versus insourcing alternative relating to the call center operations. What research has been done by Terasen, or its consultants, that supports Terasen's conclusion that they will be able to provide the services of a call center in a more cost effective manner than an outsourced call center?

**Response:**

Terasen Gas believes that the cost effectiveness of the call centre component of the Project is established by the analysis undertaken already, and that the analysis referred to in the question is unnecessary. There are several reasons for this conclusion.

First, Terasen Gas' approach to confirming the cost effectiveness of the proposed strategic sourcing solution including insourced call centre and back office operations focused on validating that each of the components of the services to be in-sourced are *in aggregate* the best overall solution for customers. Although the Amended Application describes and assesses the Project in terms of four components (the specific analytics related to each of the components are included in Section 4.3 related to call centre and Section 4.4 related to billing and back office operations), the components were not evaluated as isolated parts. Each of the components is a building block and relies on the other components to support the overall solution. If individual components are removed, the overall structure would need to be redefined. In aggregate the costs included in the financial analysis confirm that the overall solution is more cost effective than the status quo, which represents full business process outsourcing including call centre and billing and back office operations.

Second, the Company does not believe the service quality objectives defined in the Application can be met through a fully outsourced model regardless of the provider. As discussed in the Application, Terasen Gas did not believe it was appropriate or beneficial to go out to market for outsourced services related to these specific business areas. For further discussion on the implications of continued outsourcing see the response to BCUC IR 1.7.3.



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Third, for the call centre specifically, the Company undertook prudent procurement practices and / or competitive benchmarking for each of the elements making up the call centre: technology, labour, and facilities. Having market tested the components, Terasen Gas was confident that the in-sourced call centre option was necessarily cheaper because an outsourced provider could be expected to add a profit margin to the entire cost structure. By contrast, Terasen Gas earns an allowed return on only the components of the call centre that go into rate base.

Fourth, even if Terasen Gas had concluded it was appropriate to market test the call centre as a single component, rather than in its constituent parts, the Right of First Refusal in the Client Services Agreement with CWLP represents an impediment to market testing the packaged of all of the call centre components. This is explained further on pages 85 and 86 of the Application.

In sum, Terasen Gas believes that, for the reasons stated, a thorough analysis was done related to an insourced call centre solution and that the recommendation made in this Amended Application is in the best interests of ratepayers. The analysis undertaken and was appropriately described in the Amended Application in accordance with the Commission guidelines quoted in the preamble.

- 96.2 As an alternative to issuing an RFQ please provide some analysis, prepared by either a consulting firms or the Company, indication what the total annual cost to outsource the call centre operations for the Company, TGV, and TGV would be. Please assume that the Company owns and maintains the SAP CIS Software as proposed in the Application.

**Response:**

With reference to the preamble, Terasen Gas believes that the Amended Application accords with the Commission guideline. The Amended Application contains a detailed alternatives analysis, comparing the costs, benefits and associated risks of the Project and the status quo. The alternatives analysis goes beyond that broader comparison to discuss the alternatives that comprise each of the component parts of the Project. A detailed analysis and market test was performed for the components making up the call centre. In cases where costs and benefits are quantifiable, they have been provided. Terasen Gas has not included the analysis referred to in the question in respect of the call centre because the Company does not believe the analysis is required to establish the cost effectiveness of the Project. Please refer to the response to BCUC IR 1.96.1.





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**97.0 Reference: CALL CENTRE**

**Exhibit B-4, Chapter 4 Analysis and Alternatives, Sec. 4.3 Call Centre, pp. 87**

**Terasen Gas Inc. Application for Approval of the Sale of Vacant Land at 3700 2nd Ave, Burnaby, B.C ("Lochburn Land Sale")  
Redundant call centre - sale of land**

"The secondary site will be located in a purchased facility in the Interior. The combination of these two sites provides the best and most cost effective solution for customers."

97.1 Does the purchased facility in the Interior contain excess land not required for utility purposes? (Question 53.9)

**Response:**

The purchased facility in the Interior does not contain excess land not required for utility purposes.

97.2 If land associated with the purchased facility in the Interior is no longer used or required for utility, are the Company's shareholders entitled to any gain on the sale of excess land? Discuss with respect to the decision by the Supreme Court of Canada in ATCO Gas & Pipelines Ltd. v. Alberta (Energy & Utilities Board), 2006 SCC 4. (Question 53.10)

**Response:**

As indicated in the response to BCUC IR 1.97.1, there is no excess land. Please refer to BCUC IR 1.67.5.1 regarding any hypothetical future disposition of land that is no longer used for utility purposes.

97.2.1 If the Company's shareholders are entitled to any gain on the sale of excess land, are they also at risk for any losses on the sale of excess land?



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**Response:**

As indicated in the response to BCUC IR 1.97.1, there is no excess land. Please refer to BCUC IR 1.67.5.1 regarding any hypothetical future disposition of land that is no longer used for utility purposes.



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**98.0 Reference: CALL CENTRE**  
**Exhibit B-4, Chapter 1 Application, Sec. 1.1.4 Project Cost and Rate**  
**Impact, p. 7**  
**Total Project Cost**

"The total cost of the Project, based on a January 1, 2012 go-live date, is estimated to be \$122 million including AFUDC. The total O&M costs to provide the required customer care services after the Project is completed are estimated to be \$46 million in 2012, the first full year after the completion of the Project. These have been revised from the values reported in the June 2, 2009 Application of \$155 million including AFUDC for the Project and \$47 million in O&M costs in 2012."

98.1 Please identify the budget, system failure, employee, process and organizational risk that the Customer Care Enhancement Project will not meet the project specifications.

**Response:**

The project costs and mitigation steps are discussed on pages 29 to 33 of the Amended Application, not in the introduction as referenced in the question. Please also see the response to BCUC IR 1.104.1 for additional discussion on Project risk.

98.1.1 Is the Company's shareholder willing to assume responsibility for any of the risks stated in the previous question?

**Response:**

No, the Company's shareholder is not willing to assume responsibility for any of the risks stated in BCUC IR 1.98.1. The Project is to provide service to customers and is in the long term best interests of customers. As such the prudently incurred costs associated with the Project are legitimately recoverable in rates. A cost collar can result in prudently incurred expenditures being disallowed, which has the effect of denying the shareholder its legal right to an opportunity to earn a fair return.

TGI intends to take appropriate steps to mitigate Project risks. These steps are outlined on pages 29 to 33 of the Amended Application. Please refer to BCUC IR 1.104.1 for additional discussion on Project Risk and Mitigation.



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- 98.2 Please describe the efforts that the Company has made to explore alternative ways to structure the ownership of the project to reduce the risks to the Company's ratepayers. Why have these efforts not been successful?

**Response:**

The Company undertook a detailed alternatives analysis as discussed in Section 4 of the Amended Application (the preamble references section 2, which is the Project description). The alternatives analysis undertaken by the Company considered outsourcing arrangements. The Company concluded for the reasons set out in Section 4 that the proposed Strategic Sourcing model was in the best interests of customers; therefore, TGI has not sought to enter any outsourcing arrangements.



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**99.0 Reference: CALL CENTRE**  
**Exhibit B-4, Chapter 2 Project Description and Schedule, Sec 2.3.2.1**  
**Call Centre Components, pp. 23-24**  
**Disaster Recovery Plan ("DRP")**

"The fall back site will ensure there is no interruption in service related to gas emergency calls in the event that one of the two sites is unavailable. ... to ensure full redundant failover is available for emergency call handling."

99.1 What is the current DRP to ensure gas emergency calls are dealt with? Is this facilitated by multiple call centres?

**Response:**

The current Disaster Recovery Plan related to call centre services includes the installation of duplicate systems as well as trained emergency call handling staff at a geographically separate location. This is not unlike the solution that Terasen Gas is proposing in this Amended Application.

99.2 Assuming a single call centre, in the event of a disaster affecting the Company's call centre would the gas emergency calls be able to be handled by a district office outside of the Lower Mainland?

**Response:**

A single call centre is not a recommended approach in the call centre industry for managing customer service, including emergency calls. Terasen Gas believes that two call centres, as proposed in the Application, are required to adequately support customers' needs, both in times of an emergency, and during the normal course of business to ensure that service levels are adequately supported.

However, operating under the assumption of a single call centre, Terasen Gas does not recommend utilizing a district office as a 'disaster recovery' alternative site. A secondary centre requires fully trained staff who are required to handle emergency calls as a regular part of their work responsibility in order to ensure their skills are maintained. A district office is not staffed to meet these requirements as it is not staffed with either the resources or skills to provide critical backup for this business process.



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- 99.3 What is the expectation of continuation of service in the event of an IT infrastructure failure that affects the Companies data transmission capability?

**Response:**

Disaster Recovery is a requirement not just for Call Centres but for all of the Company's key business processes. Terasen Gas has reviewed its overall DRP requirements and already has a project underway to increase its DRP capabilities. At this point in time, the corporate DRP project is in the final stages of the detailed design phase. The DRP project staff are aware of the CIS initiative and are taking into consideration the proposed Call Centre locations and high level requirements in its design phase in the event the CIS project is approved. Once approved, the detailed design of the CIS requirements will be completed. Terasen Gas expects to have a robust DRP capability for the call centres to ensure business continuity and support of its customers.

- 99.4 Assuming the Lower Mainland site is disabled, how will the external telephone calls be connected to the data network for connection to the Interior site when the only connection to the telephone company appears to be through the Telephony Gateway in the Lower Mainland (as shown in Figures 2 and 3 of Appendix T). Will this negate the ability of the Interior site to operate?

**Response:**

No, the Interior site will not be impacted if the Lower Mainland site is disabled. This is due to the redundant equipment in the Interior centre as well as the duplication of key call center technologies. The data network connectivity between the two sites is not critical to sustaining the ability to take emergency or other calls at the Interior site. The Company will still be able to provide support to all of the inbound queues as well as prioritizing the emergency calls. Although service levels might be impacted over the short term the technologies can be reconfigured on site to minimize the impact by advising customers of possible delays and suggesting alternatives for non-emergency inquiries. Should call handlers not have access to CIS offline, processing scripts and forms will be available to ensure the calls are handled accurately and in a timely manner. From a call centre perspective the Interior centre would remain operational.



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- 99.5 What is the DRP with respect to the CIS software? Is the CIS software required to deal with gas emergency calls?

**Response:**

As it relates to the proposed solution, at the time the CIS system goes live, Terasen Gas expects that its upgraded DRP capabilities as it pertains to its key technology systems (including SAP CIS) will be operational. The corporate DRP project is currently underway and is expected to be completed in 2010. Please refer to the response to BCUC IR 1.99.3.

Under the current outsourcing arrangement, an emergency response plan is required under CustomerWorks responsibilities in Section 4.8 of the Client Services Agreement.

- 99.6 What is the DRP with respect to the unified IP (Internet Protocol) solution from Aspect Software? Please expand on how the call centre staff will have any access to telephone communication should the Aspect Software fail.

**Response:**

As discussed in the response to BCUC IR 1.75.4, the Aspect Unified IP solution is fully redundant. In the case of a failure one of the two centres will still be operational to support emergency calls.

In terms of recovery, the call centre technology will be addressed as part of the corporate initiative addressed in the response to BCUC IR 1.99.3.

- 99.7 Please comment on how the planned CIS, Data Centre, Data Transmission, Call Centre and Back Office DRP dovetail with the Company's existing and/or expected DRP.

**Response:**

Please refer to the response to BCUC IR 1.99.3.



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99.8 What is the process in the existing DRP for handling emergency gas calls?

**Response:**

Emergency call handling is outsourced today and is covered by the disaster recovery provisions of the Client Services Agreement.





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## **BILLING AND BACK OFFICE OPERATIONS**

### **100.0 Reference: BILLING AND BACK OFFICE OPERATIONS**

**Exhibit B-4, Chapter 4 Analysis of Alternatives, Sec 4.4 Billing and Back Office Operations, p. 87**

**Exhibit B-4, Chapter 4 Analysis of Alternatives, Sec 4.4.2.1 Staffing, p. 89**

#### **Insourcing - staffing**

"In areas where specific utility process knowledge is necessary or where direct access to CIS is required, Terasen Gas will insource those business processes. These requirements will be met by a stable and sustainable billing and back office work force with a strong background in utility business processes, specific gas industry knowledge and an understanding of local and regional market conditions impacting customers." (Exhibit B-4, Chapter 4 Analysis of Alternatives, Sec 4.4 Billing and Back Office Operations, p. 87)

"Billing and back office operations in the area of meter to cash process that benefit the most from a stable and experienced work force. Specialized gas billing knowledge is essential in supporting the timely resolution of complex issues."

"Key to the successful handling of complex billing work is a skilled workforce characterized by low turnover. There is no quick way to gain the years of experience required to handle complex billing and metering in the utility environment." (Exhibit B-4, Chapter 4 Analysis of Alternatives, Sec 4.4.2.1 Staffing, p. 89)

100.1 What research has the Company, or its consultants, performed, to determine that an appropriately skilled labour force is available in the Lower Mainland to fill the 90 FTE required for the billing and back office operations under the terms of the COPE Collective Agreements filed in confidence in Appendix V?

#### **Response:**

Terasen Gas analysis suggested that the Lower Mainland is the best location to support the Company's billing and back office staffing requirements. Below is a summary of the key attributes that support this determination.



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- The Lower Mainland has the largest population as well as the largest employable workforce in the province;
  - While the area is large in terms of geography, the Lower Mainland is served by an extensive transit system that provides access to a large potential workforce;
  - Unemployment for the Lower Mainland is approximately 7.5% which, although lower than in some of the smaller interior communities, indicates significant availability;
  - The skill set to support the billing and back office roles is a combination of accounting / financial knowledge, experience in billing and payments and energy and regional knowledge. These skills are readily available.
- This area also has the largest base for post secondary education that the Company believes provides a readily available work force with accounting and financial knowledge.
- Energy knowledge is largely acquired through working for an energy company. The Lower Mainland is the largest base for energy employment as reflected by the significant presence of Terasen Gas, BC Hydro and Pacific Northern Gas.
- Terasen Gas' largest customer population is in the Lower Mainland and therefore knowledge of the Company and its services is widely understood.
- Terasen Gas, through the Surrey operations centre has a major operational presence and reputation in the Lower Mainland. It also houses most of the Company's administrative and distribution operations. There are synergies related to this facility in providing knowledge transfer to the billing and back office work group as well as being a positive presence in attracting employees to this new work group.

Having billing and back office operation situated in the Lower Mainland provides the greatest opportunity for the Company to attract and retain skilled resources. It is also the best location in terms of alignment with other Utility operations in the Province.

"To support Terasen Gas' current and future back office billing requirements, and estimated labour force of 90 full time equivalent [FTE] employees is required. We believe this is comparable to the current outsourcing arrangement" (Exhibit B-4, Chapter 4 Analysis of Alternatives, Sec 4.4.2.1 Staffing, p. 89)



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- 100.2 In Appendix P, In Province Contact Centre Strategy, The Taylor Reach Group Inc., provides details of a complete analysis that was undertaken to determine the estimated labour force required to staff the call centre. Was any such analysis done to determine the required labour force for the billing and back office operations?

**Response:**

Terasen Gas did not perform an independent labour force assessment related to billing and back office operations. The forecasting models available in the call centre industry are not applicable to back office functions where business processes and activity volumes are driven by the supporting technologies.

An internal analysis was done to determine the number of staff required based on past experience in supporting the billing and back office functions prior to outsourcing and what Terasen Gas believes is the current staffing requirement to perform the functions today in an outsourced model. The uniqueness of the utility-specific billing and back office processes, as well as the significant impact the CIS technology has on determining business processes, does not allow for greater validation beyond the relative comparisons to current and past experience. Until 2002 Terasen Gas performed the billing and back office functions in the Lower Mainland for the interior customer base, approximately 270,000 customers at that time with 28 staff. Extrapolating this to the current customer base of 930,000 customers provided an initial staffing estimate of 96. Based on the Company's understanding of the resource requirement in place with the outsourcer we determined that approximately 90 staff would be required. Therefore, we believe the estimate of 90 staff is reasonable.

As discussed in the Amended Application in Section 4.4.2.1, the staffing levels for billing and back office operations will be validated through the blueprinting phase of the CIS implementation. To the degree that this estimate requires revision, either up or down, the cost impacts will be addressed in future revenue requirements.

- 100.2.1 If not, what analysis was performed to determine a required labour force of 90 FTE for the billing and back office operations?

**Response:**

Please refer to the response to BCUC IR 1.100.2.



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100.3 How certain is the Company of this estimate?

**Response:**

Terasen Gas believes 90 FTE for billing and back office operations is an appropriate estimate at this time. This number will be refined further during the CIS blueprinting phase, when the new billing and back office billing processes will be defined. Please refer to the response to BCUC IR 1.100.2.

100.4 Is the estimated labour force of 90 FTE expected to increase or decrease in 2013, 2014, and 2015, and by how much?

**Response:**

For the purposes of the analysis in the Amended Application, Terasen Gas assumed that no changes to the number of FTEs would be required in 2013, 2014 and 2015. The Company believes that an increase or decrease in costs to address future business changes such as an increased number of customers or operational efficiencies is best addressed through a Revenue Requirements process.

Please refer to the response to BCUC IR 1.100.2.

100.5 Have these changes in estimated FTE for the billing and back office function been factored into the Total Cost of Service and Rate Impact Analysis as presented in Section 6.4 of the Application?

**Response:**

Please refer to the response to BCUC IR 1.100.4.



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"Terasen is anticipating efficiencies in business process as a result of an integrated SAP solution and does not expect staffing levels to increase through this process." (Exhibit B-4, Chapter 4 Analysis of Alternatives, Sec 4.4.2.1 Staffing, p. 89)

- 100.6 Given that the estimated FTE are based on the assumption that the Company will own and maintain new SAP CIS software with additional functionality, would this not result in less FTE being required that utilized by the current outsourcing arrangement?

**Response:**

The Company does not believe our ownership and in-house management of the SAP CIS will be an influence on the number of billing and back office staff in comparison with the outsourcing arrangement. The impact of additional functionality may have an impact in future resource requirements. This can be confirmed after implementation.

- 100.7 If these efficiencies were to materialize and/or the Company entered into a PBR period, who would benefit from the reduced labour costs? Ratepayers, shareholders, or some form of sharing between the ratepayers and shareholders?

**Response:**

Please refer to the response to BCUC IR 1.57.1.

- 100.8 If there is a possibility of reducing any of these 90 FTEs as efficiencies are found is it cost-effective to have a portion of these FTEs provided by contractors instead of full-time employees?

**Response:**

Terasen Gas does not believe it is practical to hire contractors to perform complex work given the training and energy industry and regional knowledge required. In order to handle the uncertainties of the labour estimate during the first two years post implementation the Company will manage the efficiency impacts through its mix of full-time, part-time and temporary staff as well as through attrition. The Company believes that the collective agreement that will cover the



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billing and back office labour is flexible enough to handle the initial volatility in the work force without the need to hire contractors.

- 100.9 Assuming that one FTE is reduced after one year, please break out the fully-loaded salary and benefit cost of one FTE plus training and severance costs that would be incurred. Please compare those costs to the one-year cost of hiring a contract employee.

**Response:**

As discussed in BCUC IR 1.100.8, the Company is not planning to hire contract employees because of the staffing flexibility provided in the new collective agreement and the practicalities associated with managing the skill set required for contract employees. Therefore, Terasen Gas has no cost comparison for this option.

For a discussion on the impacts of staff reductions in the call centre please refer to the responses to BCUC IR 1.69.1 and BCOAPO IRs 1.12.1 and 1.12.2.



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**101.0 Reference: BILLING AND BACK OFFICE OPERATIONS**  
**Exhibit B-4, Chapter 4 Analysis of Alternatives, Sec 4.4.2.4 Strategic**  
**Sourcing, Table 4.2, p. 92**  
**Insourcing – facilities**

Table 4.2, Item 2, Schedule C – Meter Services the 'Current Scope of the Services' included Meter Reading.

101.1 Who is currently providing meter reading services to the Company?

**Response:**

Meter reading services are currently provided by CWLP. Through the transfer of assets CWLP acquired the BC Hydro meter reading contract which supports joint meter reading in the Lower Mainland. CWLP has also undertaken meter reading for the Interior and the Island and had integrated all 3 regions into a joint meter reading structure through their contractor, Accenture.

101.2 Where, geographically, does Accenture currently house the billing and back office operations for the Company?

**Response:**

Accenture currently houses the billing and back office operations for Terasen Gas across 3 locations:

1. The majority of the back office work is currently housed in Manila in the Philippines.
2. A smaller group handling some of the more complex billing and back office work, the collections business process, as well as providing management oversight and quality assurance support is located in Fredericton, New Brunswick.
3. Industrial billing is supported out of Vancouver, BC.

Terasen Gas believes that the consolidated insourced operating model proposed in this Application will result in improved service quality for back office and billing activities and improved interaction with the call centres.



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- 101.3 Is the billing and back office operation contracted out to CWLP/Accenture currently operating within one of the call center locations?

**Response:**

No. Billing and back office operations are not operating out of one of the call centres for the majority of the work. Billing and back office operations are currently supported through a number of locations although the largest working group is in Manila in the Philippines. Please refer to the response to BCUC IR 1.100.2 for more detail. The facility in Manila does not support call centre services for Terasen Gas. A portion of the billing work including management oversight of billing is currently supported through the Fredericton call centre site.

- 101.4 Is Accenture currently providing billing and back office services to any other utility customers other than Terasen Gas?

**Response:**

Yes, Accenture is currently providing billing and back office services for other clients. The other clients that Terasen Gas is aware of are BC Hydro, Enbridge Distribution and Washington Gas.

- 101.5 Please provide other industry examples of companies that operate the call center and the billing and back office operations out of one location.

**Response:**

It is Terasen Gas' understanding that most utility companies operate their call centre and billing and back office operations out of a common location. The companies that we have confirmed this with include BC Hydro, Manitoba Hydro, SaskEnergy, Union Gas, AltaGas, Hydro One and Gazmet. For further discussion please see the response to BCUC IR 1.101.5.1.





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101.5.1 Would it be considered industry standard to have the call centre and the billing and back office operations functioning out of one location?

**Response:**

Yes, to the best of Terasen Gas' knowledge it is considered standard practice to have the call center and back office operations functioning out of one location at least for the core back office functions including billing and payment processing. This would be more representative for insourced utility operations although with the evolution of BPO outsourcing for utilities being founded in an asset transfer model, the Company believes this is still a common model for some outsourcers as well.

The Company continues to believe that there are operational benefits in having the call center and billing and back office operations in a common location. These are discussed in Section 4.4.2.2 of the Amended Application.

101.6 Could the proposed location in Prince George accommodate both the fully redundant secondary call centre and the billing and back office function?

**Response:**

No, the facility in Prince George does not have the capacity (office space) to accommodate both the secondary call centre and the billing and back office function.

101.7 If a qualified labour force was available in Prince George would there be any incremental cost savings to have the billing and back office operations functioning out of that location? And if so what would the expected the cost savings be?

**Response:**

Please see the response to BCUC IR 1.101.6.



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**102.0 Reference: BILLING AND BACK OFFICE OPERATIONS**  
**Exhibit B-4, Chapter 4 Analysis of Alternatives, Sec 4.4.1.1**  
**Parameters on Outsourcing Billing and Back Office Operations, p.**  
**88**  
**Outsourcing – alternative provider**

"As applied to billing and back office operations in isolation, the CSA limits Terasen Gas' ability, other than through the scope change provision of the agreement, to issue an RFQ for any discrete services that Terasen Gas might identify that are currently provided within the CSA's comprehensive suite of services. The limitation prevented Terasen Gas from considering other billing and back office opportunities."

102.1 Please provide specific references in the CSA that limits the Company's ability to issue an RFQ for the Billing and Back Office Operations.

**Response:**

The specific section of the Client Services Agreement that limits the Company's ability to issue an RFQ for the discrete billing and back office operations services is Section 3.4 "Termination of Specific Client Services at End of Term or Additional Term".

Should Terasen Gas choose to go out to market for these discrete services, the complete reduced bundle of services would also be required to be re-evaluated via an RFQ process whereby CWLP would have the benefit of the right of first refusal. The pricing for the reduced services would be re-established and could be higher or lower than the current cost of service. Section 3.4 (b) specifically outlines the requirement for Terasen Gas to the address the full suite of services should a specific service be removed.

102.2 How could the scope change provision be used in order to obtain an RFQ should the Company wish to do so?

**Response:**

The scope change provisions of the Client Services Agreement, Section 15 "Scope Change Process", describe triggers and processes by which changes to the scope of services are to be facilitated. It was the intent of this section to address the need for change of both the Utility and CWLP. It addresses changes to services and the addition of new services but does not support



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the specific requirement to support pricing validation using an RFQ process through this mechanism. Therefore, the scope change provision cannot be used in order to obtain an RFQ.

The specific section of the contract that does contemplate using an RFQ or market validation mechanism to either change the third party provider or rebase the cost and quality of the services is section 3.4 "Termination of Specific Client Services at End of Term or Additional Term", not the Scope Change Process provision.

"In any event, research indicates that billing and back office operations for the utility industry is not a standard service offering for Business Process Outsource provider as a separate service offering."

102.3 Are there any service providers in Canada that provide the billing and back office service as a separate offering?

**Response:**

To the best of TGI's knowledge there are no service providers in Canada providing billing and back office services in the utilities sector for meter-to-cash operations as a separate offering. The services required in the utilities sector are complex and include depth of knowledge related to energy equipment and appliances, complex metering and gas safety within a regulated environment as well as local and regional knowledge. While the billing and back office functions might be included in a more comprehensive outsourcing arrangement in place for some Canadian utilities as a means of achieving overriding business objectives, TGI would consider an approach of only outsourcing billing and back office functions to be unusual.

As discussed in Section 4.4.1.2 on pages 88 and 89 of the Amended Application, the Company believes that the billing and back office functions are some of the most complex areas of our business and are best supported internally.

102.3.1 If yes, please provide a list of service providers within Canada that have the capacity and skills required to provide the billing and back office functions to the Company.

**Response:**

Please refer to the response in BCUC IR 1.102.3.



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102.3.2 If no service providers are able to provide the billing and back office as a separate service offering are there any service providers in Canada that can provide both the call center and billing and back office operations? If so, please identify.

**Response:**

To Terasen Gas' knowledge there are three service providers currently providing call centre and billing and back office services in Canada in the utilities sector. Accenture currently provides these services to BC Hydro and Enbridge Distribution, Vertex (through Cap Gemini) currently provides services to Hydro One, and ATCO I-Tec currently provides services to Direct Energy and ATCO.

Terasen Gas does believe there are unique skills required to perform these functions in the utilities sector. Please also refer to the responses in BCUC IR 1.102.3 and 102.3.1.



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**103.0 Reference: BILLING AND BACK OFFICE OPERATIONS**  
**Sustainment - Application Support Services, Data Center Operations**  
**Letter L-08-04 'CPCN Application Guidelines' clause 3(ii)**  
**Cost/Benefit Analysis**

Pursuant to BCUC Letter L-08-04 a CPCN application should contain, "[A] study comparing the cost, benefits and associated risks of the project and alternatives, which estimated the value of all of the costs and benefits of each option or, where not quantifiable, identifies the cost or benefit and states that it cannot be quantified. "

103.1 As an alternative to issuing an RFQ please provide some analysis, either prepared by a consulting firms or from research performed within the Company, of what the total annual cost to outsource the billing and back office operations for the TGI, TGVI, and TGW would be. Please assume that the Company owns and maintains the SAP CIS Software as proposed in the Application.

**Response:**

Exhibit B-4, Section 4.4.2, page 89 highlights that the alternatives analysis relating to the call centre also applies to the billing and back office functions. As such, please refer to the responses to BCUC IR 1.96.1 and 1.96.2.



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## RISK ANALYSIS

### 104.0 Reference: RISK ANALYSIS

#### Exhibit B-4, Chapter 2 Project Description and Schedule, Sec 2.5 Project Risks and Mitigation, Table 2.4, p.30

- 104.1 Other than those identified in Table 2.4, were any other Project risks identified? If yes please provide a complete risk analysis for each of the following components including the identification, probability of occurrence, cost implications, and mitigation strategy of each key risks.

#### CIS Platform

- CIS Software purchase
- CIS Implementation
- CIS Ongoing Support - Maintenance

#### Customer Care Services

- Call Centre
- Billing and Back Office Operations

#### **Response:**

No, other than the risks included in Exhibit B-4 no other Project risks have been identified at this time. Terasen Gas believes that the work completed to date has highlighted the key risk areas that could materially impact the success of the Project.

The Company believes that the best mitigation strategy for Project risk is an experienced team with a proven methodology coupled with a robust planning exercise. Terasen Gas is confident that it has engaged experienced implementation partners who have incorporated this experience and lessons learned into their implementation methodology and is reflected into their Project Preparation and planning processes. The Project Preparation phase is the point in the Project where the partners train the rest of the team on the methodology which is designed in large part to mitigate risk and ensure a successful implementation. As part of the Project Preparation phase, one of the control documents created is a detailed risk register. This document is reviewed by all the Project leads of the various streams of work (e.g. functional CIS, technical, facilities, etc) to ensure that there are no gaps in potential Project risks, regardless of how small, associated with their part of the project and that detailed mitigation



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strategies are reviewed, discussed and documented. The risk register is owned by the Project Management Office and remains a key document that is closely managed throughout the life of the project. Terasen Gas' Project Preparation phase is scheduled to start March 1, 2010 and is planned to complete May 1, 2010. The comprehensive risk register will be available at that time.

For details on the Project's approach to Risk Management, please refer to Confidential Exhibit B-3, Attachment VI, Risk Management pp 121-126.



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**105.0 Reference: RISK ANALYSIS**

**Exhibit B-4, Chapter 2 Project Description and Schedule, Sec 2.5  
Project Risks and Mitigation, p. 30**

"The overall project has incorporated lessons learned from information gathered through industry forums such as conferences, presentations and reference calls to other companies that have implemented similar software and reflects appropriate time allowances for various phases of the Project as highlighted above in section 2.4.2."

105.1 What were the key lessons learned from the above sources, and specifically, how has the Company incorporated these lessons into the proposed project?

**Response:**

Key lessons learned from the above sources were:

- Allocating an appropriate time allowance for each phase of the project. Some projects had very aggressive timeframes (9 – 12 months) to optimistic timeframes (12 – 18 months) while others were 18 – 27 months. While each example had their own business reasons for choosing their own project plan, the Company found that the most successful projects ensured that sufficient time was allocated to each phase of the project. To that end, Terasen Gas' project plan has ensured that each phase of the project has allowed for sufficient time in each phase to mitigate the risk of work that was supposed to be completed in one phase rolls into the projected time of the next phase, complicating the work or forcing the Company to compromise on subsequent phases.
- A thorough, detailed design phase is crucial to project success. A strong and thorough detailed design with a proper review and sign-off process leads to less rework at the build and testing phases of the project. For this Project, Terasen has allocated 6 months for detailed design. This is a longer design period than most projects but Terasen Gas believes that the additional time will be beneficial in terms of identifying more issues at the design stage, and avoiding problems in subsequent phases.
- Data conversion is critical. A thorough analysis of data quality and a strong data cleansing focus prior to conversion leads to a more successful project. To that end, Terasen Gas has engaged a data migration specialist company that has a very strong and thorough methodology as well as experience with both Peace (the source system) and SAP (the target system) to support both the current service provider and the HCL Axon team.

For details on the Project's approach to Risk Management, please refer to Confidential Exhibit B-3, Attachment VI, Risk Management pp 121-126.





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**106.0 Reference: RISK ANALYSIS**

**Exhibit B-4, Chapter 2 Project Description and Schedule, Sec 2.4.2  
Timing of CIS Hardware Implementation & Implementation Plan, p.  
28**

**Exhibit B-4, Chapter 2 Project Description and Schedule, Sec 2.5  
Project Risks and Mitigation, Table 2.4, p. 30**

**Exhibit B-4, Cover Letter, Contents of Amended Application, last  
page**

**Order G-107-09**

**Project Timetable**

"The implementation of the CIS system is scheduled to last for 22 months for Project initiation to go-live. It is anticipated that there will be a three month "stabilization" period after the go-live planned for January 1, 2012, where minor adjustments and previously undetected errors will be addressed. The implementation plan consists of six phases." (Exhibit B-4, Chapter 2 Project Description and Schedule, Sec 2.4.2 Timing of CIS Hardware Implementation & Implementation Plan, p. 28)

106.1 Why did the Company select a Federal Statutory holiday as the go-live date?

**Response:**

Terasen Gas chose the date because the existing annual agreement with CWLP has an anniversary date of December 31. There is also an advantage to starting at the beginning of a fiscal year in that transactions that have financial implications do not have to be converted from one system to another, reducing overall cost.



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106.2 What is the certainty level of the Timetable set out in Table 2.2?

**Response:**

The Company assumes Table 2.2 identified in the IR was intended to reference Table 2.3. Terasen Gas and its implementation partner HCL Axon are comfortable that the timeline set out in this table is achievable.

106.3 What are the key implementation risks and what has been done to mitigate them?

**Response:**

Please refer to the response to BCUC IR 1.104.1.

For details on the Project's approach to Risk Management, please refer to Confidential Exhibit B-3, Attachment VI, Risk Management pp 121-126.

106.4 What are the logistical and financial implications to the Project if the system is not ready to go live as planned?

**Response:**

Terasen Gas strongly believes that the Project will go live as planned. Having said that, the Company does have to allow for the possibility that something unforeseen could possibly impact the go-live date and that it needs to have a contingency plan. Terasen Gas feels the Project as planned has allowed for sufficient time in each phase to provide an appropriate checkpoint to ensure that the go live date is on target. However Terasen Gas' intent is to have a contingency plan with the current service provider if a delay occurs as discussed in response to BCUC IR 1.44.1.

The final implications will vary depending on the length and reason for the delay.



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- 106.5 What contingency plan does the Company have in place if for some reason the CWLP contract ends and the proposed insourced call center and billing and back office operations are not ready to go-live?

**Response:**

Please see the response to BCUC IR 1.44.1.

The quotation for the cost of the SAP IS-U/CC&B software is a fixed price in Canadian funds valid until Dec 15, 2009. "...Terasen Gas received very favorable pricing but recognized that is the decision process stretched over a fiscal year for SAP (SAP's fiscal year is Jan-Dec), that a new cost proposal was possible. Terasen Gas took that consideration into account when determining the overall project and has incorporated as part of the contingency the amount associated with the acquisition of SAP software should the date extend into 2010 and the detailed negotiations result in a change in the original proposal from SAP." (Exhibit B-4, Chapter 2 Project Description and Schedule, Sec 2.5 Project Risks and Mitigation, Table 2.4, p. 30)

- 106.6 Given the Revised Regulatory Timetable set out in Order G-107-09 a decision by the Commission in 2009 is unlikely, and therefore there is a strong possibility that the Company will be not be able to confirm the SAP purchase before their fiscal year end. Please provide financial details of the contingency set up for a potential delay in the SAP purchase.

**Response:**

This response is provided to the Commission confidentially under separate cover. In order to not prejudice dealings and negotiations with other parties, and in order to respect the wishes of SAP, TGI needs to maintain confidentiality of the information provided in this response and limit its disclosure.



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- 106.7 How certain is the Company that the contingency will be adequate to cover any additional purchase price increases that SAP may impose?

**Response:**

The Company will continue to work with SAP to ensure the lowest price possible. We are comfortable that the contingency amount will be adequate. For further details, please refer to the response to BCUC IR 1.106.6.

- 106.8 Has the Company had any discussions with SAP regarding the possibility of honoring the RFQ for a period extending beyond December 31, 2009? If so, what were the results of that discussion.

**Response:**

Please refer to the response to BCUC IR 1.106.6.

- 106.9 How does the Company propose to treat the additional costs that may be incurred due an increase in the purchase price of the SAP software? Is the Company of the opinion that the costs should be the responsibility of the shareholder, the ratepayer, or a sharing among the parties?

**Response:**

Please refer to the response to BCUC IR 1.106.6.

"Meeting the Project implementation schedule and effective date of January 1, 2012 will require a Commission decision before February 12, 2010. The Company is hopeful that the additional information provided in the Amended Application will facilitate the efficient consideration of the Application within that timeline." (Exhibit B-4, Cover Letter, Contents of Amended Application, last page)



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106.10 In the event that the Commission has not made a determination by the proposed decision deadline of February 12, 2010, what are the logistical and financial implications, other than the SAP software purchase price, to the Project?

**Response:**

The implications vary depending on the length of the delay. For instance:

- An extended delay will jeopardize the success of the Project achieving the planned go-live date.
- An extended delay will jeopardize Terasen Gas' ability to ensure the other independent consultants the Company is planning on using to supplement the skills and tasks of the System Integrator are available. Independent consultants must plan their activities to ensure a steady income and will be hard pressed to remain available in the event of a prolonged delay.
- There may also be additional costs incurred for conversion of data that is fiscal year sensitive and would have to be converted to the new system, an activity that would be unnecessary with a January 1 go-live date.
- The proposal from Aspect for the call centre software and implementation services is valid for six months after the final proposal was submitted. This "valid until" date would be approximately the third week of February, 2010. A delay in commitment after that date could require further discussions and a possible change in the cost, although the Company is confident that this would only be the case in the event of an extended delay.
- If the delay was beyond March 1, 2010, as indicated in Exhibit B-4, Chapter 2 Project Description and Schedule, Sec 2.5 Project Risks and Mitigation, Table 2.4, p. 30, the other CIS Project software proposals would have to be negotiated as they are only valid until March 1, 2010. The fixed price proposal from HCL Axon was predicated on a start date of March 1, 2010, so any delay beyond that point would be the subject of a change order. The impact of such a change order would also be dependent on the duration of the delay. The longer the delay, the more significant the impact can be expected, either in cost and / or key resource availability.

The Company believes that it is in the best interests of customers and the Company that the Project should proceed on the planned timeline.



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- 106.11 If any, how does the Company propose to treat additional project costs in the event of a delay in a decision by the Commission? Is the Company of the opinion that the costs should be the responsibility of the shareholder, the ratepayer, or a sharing among the parties?

**Response:**

The Company is of the view that cost escalations associated with delays in the regulatory process are a legitimate Project cost and thus should be recovered from ratepayers.

Escalations of this nature are a risk inherent in any project that requires advance regulatory approvals such as a CPCN. Some key third-party suppliers and service providers that have been selected to be involved in the implementation of this Project were only willing to hold prices for fixed periods of time. This is a common situation in project development and in business generally when quotations are obtained from third-parties. There is frequently a cost associated with securing a fixed price for longer periods of time. In the case of SAP, they have a policy not to hold prices into a new fiscal year. In the case with HCL Axon, the project resources represent billable hours and a delay beyond the previously agreed to start date will force HCL Axon to make business decisions on how to address a change in agreed to scope that a delay would represent. The incremental costs contemplated in the preamble associated with the HCL Axon and SAP quotations are not "penalties", but rather are cost escalations that occur when the direction to proceed with work cannot be provided before the end of the period during which the current quotation is valid.

In recognition of the market reality about prices being held for limited duration, the Company secured quotations for the longest possible times that the third parties SAP and HCL Axon were willing to provide (i.e. to their fiscal year-end in the case of SAP). At the same time, the Company included an amount for a contingency in the Project cost to allow for the potential that it would not be possible to complete the regulatory process in time to issue the direction to proceed before the quotation expired.

The Company then filed its June Application and proposed to undertake some of the regulatory process in respect of the CIS system while waiting for the pending developments in respect of the call centre and back office components of the Project. The Company's hope was that this would expedite the process to improve the prospect of being able to capitalize on the fixed price, and not to have to resort to the contingency. This has not occurred, but making it likely that the contingency will be required in the case of SAP and may be required for HCL Axon in the case of an extended delay. Either way, the costs are legitimate Project costs incurred for the purpose of delivering enhancements to customer care. The costs are prudently incurred and are recoverable from customers.



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- 106.12 For the Customer Care Project Completion Timetable [Table 2.3], provide the critical dates of key events, and the timing of approvals required from other agencies to ensure continued economic viability of the project.

**Response:**

The critical dates are the start date of March 1, 2010 and the go live date of January 1, 2012. All Project obligations are predicated on the planned start and completion dates. Any date beyond the planned start date will require all third party resource plans (except SAP software as identified in the response to BCUC IR 1.106.6) to be revisited. Any extended delay could jeopardize key resource availability and the go live date.

January 31, 2010, is currently the date in the agreement to acquire the Prince George facility where Terasen Gas must remove the "subject to regulator and TGI management approval clauses". The Company has held conversations with the seller and feels that a minor extension to the subject clause date can be negotiated with no impact to the Project. The proposed "subject to approval..." clause in the lease agreement under negotiation with the Lower Mainland location is February 26, 2010. If there is an extended delay to the approval date, Terasen Gas runs the risk that the planned facilities will no longer be available. TGI is not aware of any other permits or approvals other than this CPCN that are required to implement the Project.



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**107.0 Reference: RISK ANALYSIS**

**Exhibit B-4, Chapter 2 Project Description and Schedules, Sec 2.2  
The Evolution of Terasen Gas' Current Customer Care Operating  
Model: Business Process Outsourcing, p. 15**

**Exhibit B-4, Chapter 1 Application, Sec 1.1.1 Current Customer Care  
Model and CIS p. 3**

**Potential Cost Overruns**

"A review completed after the implementation of the first two components of Project Mercury concluded that since the capital costs were likely to be higher than forecasted and implementation risks had increased, it would be prudent to explore alternatives to a fully in-sourced customer care model. The capital cost shortfall related primarily to the facilities required to support the customer care services rather than the CIS system." (Exhibit B-4, Chapter 2 Project Description and Schedules, Sec 2.2 The Evolution of Terasen Gas' Current Customer Care Operating Model: Business Process Outsourcing, p. 15)

The current customer care function has been outsourced to CWLP since January 1, 2002 and at that time the key drivers that favoured the outsourcing model were:

- Cost certainty;
- Transfer of implementation risk; and
- Maintenance or enhancement of customer service levels.

"The arrangement with CustomerWorks LP succeeded in meeting the original outsourcing objectives by providing customers and Terasen Gas with cost certainty and risk transfer, as well as delivering generally satisfactory customer service over much of the time since 2002." (Exhibit B-4, Chapter 1 Application, Sec 1.1.1 Current Customer Care Model and CIS p. 3)

107.1 Changing from an outsourcing model to an insourcing model reduces cost certainty and as a result increases risk to the ratepayer. What evidence does the Company have that ratepayers are willing to bear the responsibility for potentially higher rates due to cost overruns and/or increased future operating costs?

**Response:**

Terasen Gas no longer believes that outsourcing is the best tool for providing cost certainty, contrary to what is implied in the question. There are two main reasons for this.



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First, the assumption that the Client Services Agreement currently provides, and will continue to provide customers with cost certainty is incorrect. The Client Services Agreement is structured to provide certainty on the base services, but the Company and customers must pay more to obtain anything beyond the base services and service quality levels present in 2002. The Client Services Agreement also includes an annual cost escalator so customer costs rise year over year. If there are cost reductions realized by the outsourcer then those benefits flow to the outsourcer. The Client Services Agreement produced relative cost certainty in the early years of the arrangement because this was a time of relative stability in terms of industry, business, legislative and regulatory change. In recent years, however, the degree and pace of change has increased. The cost to accommodate these changes has been incurred by the Company and passed on to customers. The table in the response to BCUC IR 1.2.1 indicates the cost of change that has been incurred to date outside of the base fees under the Client Services Agreement.

Second, the Strategic Sourcing model inherent in the Project offers advantages over the current model in the face of the changes occurring in Terasen Gas' operating environment, which ultimately provide additional cost certainty following implementation.

- TGI's ability to control its own systems technology, training and workforce will allow the Company to respond much more quickly to future changes. The ease and speed of making changes in an outsourced environment is challenging.
- The Company will have the ability to exercise greater control over the scope and nature of modifications, and the resources committed to it, in response to future requirements. Under the current outsourcing model, the cost of changes cannot be confirmed to be market competitive given the outsourcer's control over the technology assets as well as the supporting work force.
- The combination of an industry leading highly-configurable CIS supported by internal resources and in-house control and management of operational resources will reduce the Company's reliance on third parties. Again, this will result in improved speed and lower overall cost of implementing change.
- The Company and its customers, rather than the outsourcer, will benefit from operating efficiencies as cost reductions due to improved operating practices and service enhancements will be realized by the Company and its customers (depending upon the regulatory regime in place at the time).

In light of changes that have been occurring over the last several years, and are expected to continue into the future, the Company believes an insourced model will result in higher cost certainty, greater control over processes and change, and lower overall risk.



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**108.0 Reference: RISK ANALYSIS**

**Exhibit B-1, Chapter 2 Project Description and Schedule, Sec 2.5  
Project Risks and Mitigation, p. 22**

"From a technology perspective, Terasen Gas believes that it has the demonstrated capabilities to ensure the risks associated with large implementation projects are well understood and can be managed"

108.1 Please provide details of similar large implementation projects, including IT projects that demonstrate the Company's capabilities."

**Response:**

Please refer to the response to BCUC IR 1.47.1.

108.2 Please provide a list of five CPCN's that the Company has completed in the last 3 year that were within or less than budget?

**Response:**

Terasen Gas is confident that it will be able to implement the Customer Care Enhancement Project within the budget provided in the Amended Application.

In the last 3 years, Terasen Gas Inc has completed 3 projects for which a CPCN was obtained. They are listed in the table below. All of the projects were completed under budget.

**Table 108.2 – CPCN's Terasen Gas Has Completed Within Budget In The Last 3 Years**

Company	CPCN	Cost Estimate (\$m)	Completed Project Cost (\$m)	Project In-Service Date
TGI	Residential Unbundling	12.1	10.7	2007
TGI	Distribution Mobile Solution	6.2	6.1	2008
TGI	Vancouver Low Pressure Replacement	23.1	17.5	2008

Terasen Gas is confident that, as with the above projects, the Company will successfully put into service the Customer Care Enhancement Project in accordance with the budget presented in the Amended Application.



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## EVALUATION OF ALTERNATIVES

**109.0 Reference: EVALUATION OF ALTERNATIVES  
Exhibit B-4, Appendix B UtiliPoint Report, p. 4  
UtiliPoint**

"Terasen Gas has retained UtiliPoint International for the purpose of providing expertise, insight, and actionable knowledge to the company on the broad subjects of utility customer care, customer service business processes, and outsourcing."

109.1 Please provide the terms of reference for the UtiliPoint Report.

**Response:**

Please refer to Attachment 109.1.

109.2 Please provide a copy of the facts and assumptions the Company provided to UtiliPoint.

**Response:**

Please see BCUC IR 1.109.1 for the UtiliPoint terms of reference. The Company did not provide UtiliPoint with any additional documentation setting out facts and assumptions.



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**110.0 Reference: EVALUATION OF ALTERNATIVES**  
**Exhibit B-1, Appendix B UtiliPoint Report, p. 4**  
**UtiliPoint**

"A key question is: What kind of business operating model and technology platform strategy would be best to support the company's strategy and preferred operations approach? Another critical component would be to answer the question: How will the company's answer be positioned with the regulator and how might an appropriate understanding of operations and costs be described?"

110.1 Please provide "the Company's strategy and preferred operations approach."

**Response:**

A discussion of the Company's strategy, business and operations objectives is provided in the TGI 2010-2011 Revenue Requirements Application, Part III, Section B, Tab 2, pages 200-215. As discussed in the Revenue Requirements Application (RRA), the Company intends to continue its focus on continuous improvement and operational excellence. As listed in the RRA, management focus going forward will continue to relate to five key areas:

1. Customer Service
2. Management Excellence
3. Operational Performance
4. Employees
5. Prudent Cost Management

As the Company looks to the future and the changes taking place in its business environment, Terasen Gas believes it is critical to our long term success and our ability to attract and retain customers to focus on maintaining and improving customer service through a broader range of services and offerings. This will be facilitated through the primarily centralized management and operations approach that we currently operate under which has proven successful over many years. Implementing the CCE Project will support achievement of the Company's longer term objectives of retaining and attracting customers and maintaining a strong energy delivery business.



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"The primary goal behind UtiliPoint's research and consultative assistance in this deliverable is to provide Terasen with support for decision making around meter-to-cash business models processes in a manner consistent with Company business, operations performance, and economic objectives."

110.2 Please provide the Company's "business, operations performance, and economic objectives."

**Response:**

Please refer to the response to BCUC IR 1.110.1.



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## 111.0 Reference: **EVALUATION OF ALTERNATIVES**

### **Exhibit B-5, Slide 6**

### **Exhibit B-1, Appendix B UtiliPoint Report, Ownership – Outsourcing Control Recommendations, p. 41**

### **Options Considered**

"In assessing its customer care function, Terasen Gas assessed 4 potential models: 1) Status Quo; 2) Full outsourced model; 3) Fully insourced model; and 4) Strategic sourcing model." (Exhibit B-5, Slide 6)

"...a hybrid of insourced and outsourced functions – referred to in the industry as Strategic Outsourcing."

111.1 In addition to the preferred solution as proposed in the Application, please confirm that several other strategic outsourcing alternatives were available to the Company to evaluate had they chosen to do so?

### **Response:**

A strategic sourcing model is the term used to describe a blend of insourcing and outsourcing that best meets the needs of the company in question. A strategic sourcing model enables companies to assess whether particular capabilities are most efficiently or cost effectively outsourced to provide specialized capabilities, or alternatively whether the company's own resources can perform a particular function better than outsourced providers. This matching of capabilities to decisions regarding the best resources to perform a capability is how a strategic sourcing model operates.

In assessing its options for strategic sourcing, Terasen Gas has determined that:

- Call centre and billing and back office operations are capabilities best supported in-house for the reasons described in the Amended Application in Sections 4.3.2 (1), (2) related to call centre and Sections 4.1.1 (1), (2) related to billing and back office.
- Highly specialized tasks requiring high volume transactional processing generally via an automated process, such as statement printing and mailing, are best supported by continuing to outsource.



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In theory, other options for strategic sourcing were available. For instance, the Company could outsource the call centre only. The same is true for billing and back office functions. Alternatively, the Company could have determined that statement printing and mailing could be performed by Terasen Gas resources. However, these models would have been sub-optimal. As outlined in the Application, there are issues associated with outsourcing either the call centre or the billing and back office functions. A discussion of the issues associated with outsourcing call centre services is included in the response to BCUC IR 1.77.8 and highlights the critical role played by the call centre in managing service quality. The challenges related to outsourcing billing and back office are articulated in the response to BCUC IR 1.102.3. The services required in the utilities sector for billing and back office operations are complex and include depth of knowledge related to energy equipment and appliances, complex metering and gas safety within a regulated environment. Had the Company chosen to go out to market using the RFQ provisions of the agreement there would likely be a small number of potential respondents.

By contrast, insourcing a function like statement printing and mailing does not make sense for Terasen Gas. To process Terasen Gas' statements of approximately 50,000 documents daily requires highly specialized equipment. The timeline is also critical to support the tariff requirement to allow customers adequate time to pay prior to the due date. The critical role played by this function also requires that redundant equipment be available to avoid delays in processing. Other business processes that are also good candidates for outsourcing are remittance processing and translation services which require a special skill or equipment and where timely processing is a necessity.

As is the nature of a strategic sourcing model, Terasen Gas assessed each capability appropriately and made a decision to either insource or outsource that capability while taking into account any obligations to the terms of the existing Client Services Agreement with the incumbent outsource provider. TGI believes that the Project represents the best service delivery model for customers.

UtiliPoint has stated, "One such model that may provide the foundation for achieving maximum flexibility balances by suitable business processes might be:" In-House Control over the CIS and Outsourcing of the Call Center. (Exhibit B-1, Appendix B UtiliPoint Report, Ownership – Outsourcing Control Recommendations. 41)

111.2 In the UtiliPoint report an outsourced call centre and an in-house CIS software solution was the Strategic Outsourcing model that was recommended to the Company. Why was this Strategic Outsourcing alternative not more thoroughly analyzed in the Application as it appears to be a viable solution which would



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give the Company control over its CIS software while limiting the risk of the call centre operations?

**Response:**

The Strategic Outsourcing Model discussed in the UtiliPoint report was thoroughly analyzed. The Company's analysis is explained in the Amended Application:

- Please refer to Sections 4.3.1, 4.3.2.1 and 4.3.2.2 on pages 78 and 79 of the Amended Application for discussion regarding the outsourced call centre assessment;
- Please refer to Sections 4.1 and 4.1.1 on pages 56 and 57 of the Amended Application for discussion regarding the in-house CIS software solution.

Please also refer to the response to BCUC 1.111.1.

Terasen Gas has concluded, based on our analysis described in the Amended Application, that the current BPO outsourcing model supported by the Client Services Agreement is not sustainable and that a strategic sourcing model is the right decision for the Company. Additionally, by virtue of the Right of First Refusal in the Client Services Agreement, the Company's analysis of options must assume that CWLP would be the outsource provider if the Company were to continue with a strategy of business process outsourcing.





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## **112.0 Reference: EVALUATION OF ALTERNATIVES**

### **UtiliPoint**

#### **Exhibit B-1, Appendix B UtiliPoint Report, p. 22-25**

#### **Exhibit B-4, Chapter 2 Project Description and Schedules, 2.2 Evolution of Terasen Gas' Current Customer Care Operating Model: Business Process Outsourcing, p.15**

#### **Exhibit B-4, Chapter 2 Project Description and Schedules, 2.2.1 The Client Service Agreement, p.15**

### **Sourcing Alternatives**

"Enbridge represents one of the few examples of a utility that is on its second go-around of a major business process outsourcing contract. Having entered into an over –arching agreement with Accenture originally, as the term of the agreement approached its end, Enbridge decided to adopt a strategic sourcing approach where the multiple functions within the Meter-to-Cash process were bid separately." (Exhibit B-1, Appendix B UtiliPoint Report, p. 25)

According to Enbridge, Accenture was awarded a minimum five-year contract in 2007, to provide Enbridge Gas Distribution Inc. with business process outsourcing services related to billing, billing inquiry, collections, meter reading, and emergency and service call centre management. The Enbridge deal with Accenture represents a renewal of sorts of the 2002 outsourcing agreement. The deal was not a straight renewal as Enbridge has adopted a strategic sourcing approach where CIS is contemplated to being bought back in-house and has been awarded to SAP with a non Accenture integrator"

"... the process was very competitive and the call centre piece was narrowly renewed by Accenture after Accenture agreed to remove the Customer Works mark-up." (Exhibit B-1, Appendix B UtiliPoint Report, p. 25)

112.1 It appears that Enbridge was in a very similar situation in 2006/2007 that Terasen currently find itself in. Enbridge's strategic sourcing approach was to bring the CIS back in house, but continue to outsource the call centre and some of the Meter-to –Cash processes. Please explain why Terasen did not consider this strategic outsourcing solution in more detail?



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**Response:**

Terasen Gas did consider whether to continue to outsource the call centre and some of the meter-to-cash processes, contrary to what is implied by the question. Terasen Gas also considered whether to insource or continue to outsource the CIS system. However, the Company determined that insourcing the call centre, billing and back office and CIS was the best model for the Company's customers going forward. Please see the response to BCUC IR 1.111.1.

Terasen Gas is not aware of the contractual framework in which Enbridge operated except that (as observed in the quoted passage) Enbridge had reached a point in its arrangement that allowed an opportunity to re-negotiate. This fact is what permitted Enbridge to look to third party outsourcers and engage in the type of competitive process that is referenced in the passage. TGI's Client Services Agreement with CWLP, by contrast, remains ongoing. The Right of First Refusal (ROFR) in TGI's Client Services Agreement with CWLP means that any outsourcing arrangement for components of the client services would almost certainly continue to be handled by CWLP. Attracting any interest from third party bidders would be difficult in light of the ROFR. Terasen Gas does not believe that continuing to outsource the call centre and other meter-to-cash processes to CWLP under the existing arrangement meets the service quality objectives of this Application nor is it sustainable over the long term. The insourcing of CIS in isolation would not be expected to provide the customer service quality benefits that the Company is seeking.

- 112.2 In 2002 Enbridge entered into a contract with CWLP around the same time as Terasen did; however, Enbridge was able to obtain bids for discrete functions within the Meter-to-Cash process, including the call centre. Please explain why Terasen was not able to negotiate this option with CWLP and obtain bids for discrete functions such as the call centre?

**Response:**

Terasen Gas does not have access to the original Enbridge / CustomerWorks agreement so can only assume that the terms of that agreement were different than the situation that Terasen Gas is facing. It is our understanding that Enbridge was able, through their agreement or negotiations with CWLP, to go out to market for the services using an RFQ process and in fact selected Accenture to continue to provide the services to the end of the original term ending in 2012. The Company does not believe any of the services continue to be provided through CWLP.



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The Client Services Agreement, entered into in 2002, was the product of negotiation. The finalized agreement was presented to the Commission with considerable detail explaining the rationale for the outsourcing arrangement. The Commission approved the outsourcing arrangement and the contract after a proceeding. The Client Services Agreement achieved its intended purpose for a number of years, as discussed in Section 3.3.1 of the Amended Application. The circumstances faced by the Company today are a product of changed circumstances that were not foreseen at the time the Client Services Agreement was executed by BC Gas and approved by the Commission. In light of these facts, Terasen Gas respectfully submits that revisiting the details of the Agreement now, with the benefit of hindsight, is not a useful exercise.

Although Terasen Gas' model of Strategic Sourcing is different from the decision Enbridge came to in 2007 the approach to evaluate options was similar. Enbridge decided to adopt a strategic sourcing approach where the multiple functions within the Meter-to-Cash process were bid separately. Enbridge's process led that company to a decision to continue to outsource a number of services based on a different contractual arrangement. Terasen Gas engaged in a similar analysis, although came to a decision that continued outsourcing in a number of key areas did not meet our business needs. The options Terasen Gas pursued focused on the components of an in-house solution. The resulting Terasen Gas Strategic Sourcing model, though different from that of Enbridge, is the right model for the Company and its customers.

The primary business challenge cited by Enbridge for its recent outsourcing contract with Accenture was that it needed to improve customer satisfaction and minimize cost. The utility has been accused in the Toronto press of frequent billing mistakes that are slow to rectify. Together, Enbridge and Accenture Utilities BPO Services have set a mandate to reduce overall costs while improving customer satisfaction and minimize bad debt. Enbridge has decided to leave the existing platform for CIS/billing [PEACE] and to adopt an SAP customer service strategy. "(Exhibit B-1, Appendix B UtiliPoint Report, p. 24)

112.3 It appears that the issues Enbridge experienced with their legacy customer care model related to the CIS software and not Accenture's services. In 2007 and 2008 were the Enbridge and the Terasen call centers run by the same or similar Accenture staff?



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**Response:**

Terasen Gas cannot comment specifically on Enbridge's experience related to the customer care services provided by their outsourcer and their conclusion that the issues were more the result of their CIS software.

It is the Company's understanding that at a senior level call centre services are centrally managed by Accenture, although the majority of operational staff are dedicated to a single client. Terasen Gas does believe that, as it relates to call centre services specifically, Enbridge does still enjoy the benefit of having the majority of their calls handled within their service area. At the time they originally outsourced their customer care services, most, if not all, of their calls were supported in-province. At this point Terasen Gas believes a portion of their calls have moved to the Fredericton site.

In drawing parallels between the two utilities, Terasen Gas and Enbridge, it should be noted that the degree of commonality between Enbridge and TGI is limited. We use different systems, have different processes and regulatory environments, and operate under different outsourcing agreements as discussed in the response to BCUC IR 1.112.2.

The circumstances that led Enbridge to their decision to continue to outsource their billing and back office functions are not the same as those facing Terasen Gas either in terms of the underlying outsourcing arrangements or their prior experience. For Terasen Gas an insourced call centre has been determined to be the best solution for our customers to ensure quality customer service.

"According to Enbridge the primary reason for remaining with Accenture on certain functions was the company's experience, proven delivery capabilities, governance model, and commercial terms, including price." (Exhibit B-1, Appendix B UtiliPoint Report, p. 25)

The BPO agreement anticipates and accommodates upcoming regulatory change, including the Gas Distribution Access Rule (GDAR) and Open Bill Access. "It was important for us to partner with an organization that is flexible and that could provide end to end services for clear accountability," said Enbridge Vice President of Finance and Business Optimization Scott Player. "Accenture Utilities BPO Services is a client focused organization that is proactive in addressing our evolving needs and brings value over and above the service level agreement that are in place. They accomplish this



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through a strong customer service culture and by combining the best people with state of the art technology." (Exhibit B-1, Appendix B UtiliPoint Report, p. 23)

- 112.4 It appears that Enbridge has a very strong working relationship with Accenture and is impressed with the organization as a whole, including believing that they have the best people and state of the art technology; however, it appears that Terasen has a very different perspective of Accenture than Enbridge does. Please explain the opposing views?

**Response:**

TGI is confident that Accenture is a capable and sophisticated organization that is able to provide the right solutions for many of its customers. With respect to the Company's experience to date, Terasen Gas believes that the quality of the working relationship in any outsourcing agreement is strongly influenced by the design and implementation of the contractual arrangement between the utility and the outsourcer. TGI's Client Services Agreement with CWLP, which Accenture has subcontracted with CWLP to perform, is premised on the practices and service levels present in 2002. This worked well during the first five years of the agreement; however, much has changed since 2002 both in our business and in outsourcing practices. Without having seen the Enbridge-Accenture agreement, Terasen Gas can only assume the new agreement negotiated between Enbridge and Accenture in 2007 more closely aligns with Enbridge's strategic goals and current outsourcing best practices.

Terasen Gas has outlined in the Amended Application the reasons for preferring an insourced call centre and billing and back office function. The Company is of the view that, in particular, TGI's objective of increasing flexibility to respond to changing business conditions is best met through insourcing the call centre and billing and back office functions, irrespective of the potential outsourcing partner. (Although that party is likely to be CWLP in light of the right of first refusal.) Terasen Gas cannot comment on Enbridge's strategy with respect to how they wish to deliver customer care services, and manage its interactions with customers. It is Terasen Gas' view that it is in the long-term best interests of our customers that the critical interactions between the Company and customers are performed directly by Company-trained Terasen Gas employees, and not managed by a third party outsourcer. The Company's financial analysis presented in the Amended Application also suggests that the Project provides savings on a levelized basis relative to the notional costs of maintaining the current model.



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## FINANCIAL ANALYSIS

### 113.0 Reference: FINANCIAL ANALYSIS

#### Exhibit B-4, Chapter 6 Project Costs, Sec 6.4 Cost of Service and Rate Impact Analysis, p. 113

##### Current Customer Care Costs

"On a levelized basis over the 20 year analysis period starting in 2012, the annual cost per customer of the new customer care function is estimated to be \$67.50.33 This amount compares with the notional \$71.7034 per customer for the levelized cost of the current customer care function for which we have assumed that no new incremental costs would be incurred."

- 113.1 Please project the expected annual cost of service of the existing customer care function for the years 2013 – 2020 in a similar manner as displayed in Table 2.2.

#### **Response:**

Please see the following table for the equivalent of the notional cost of service of the existing customer care function. Lines 10-18 contain the projected costs for 2013 to 2020.



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TERASEN GAS INC

## Customer Care Enhancement Project CPCN Application

### BCUC IR1, Question 113.1

<u>Service Component</u>	2002	2003	2004	2005	2006	2007	2008	2009p	2010p	2011p	2012p
1 Base Contract (CSA)	35,487	42,278	42,864	43,526	47,186	49,179	50,117	52,026	53,257	54,495	60,427
2 Other Services	40	52	41	120	151	203	173	217	221	225	230
3 Scope Changes	-	52	29	8	-	104	106	98	98	98	113
4 Subtotal	35,527	42,383	42,935	43,654	47,337	49,486	50,396	52,340	53,576	54,818	60,769
5 Cost /Customer	46.24	54.85	54.92	54.99	53.03	54.35	54.57	55.88	56.80	57.62	63.32
6 Administration	221	250	330	445	456	436	517	776	797	819	842
7 Banner & Conversion <sup>1</sup>	-	-	1,634	1,735	(1,311)	123	1,536	1,463	1,367	1,294	1,208
8 Total Customer Care	35,748	42,632	44,898	45,834	46,483	50,045	52,450	54,580	55,740	56,931	62,819
9 Cost /Customer	46.52	55.17	52.05	52.14	52.07	54.97	56.80	58.28	59.09	59.84	65.45
<u>Service Component</u>	2013p	2014p	2015p	2016p	2017p	2018p	2019p	2020p			
10 Base Contract (CSA)	62,482	63,783	65,090	66,425	67,786	68,952	70,735	72,092			
11 Other Services	235	239	242	245	248	252	255	259			
12 Scope Changes	130	149	171	197	227	261	300	345			
13 Subtotal	62,847	64,170	65,503	66,867	68,261	69,464	71,290	72,696			
14 Cost /Customer	64.90	65.67	66.42	67.17	67.93	68.47	69.61	70.32			
15 Administration	867	892	918	945	973	1,002	1,031	1,061			
16 Banner & Conversion <sup>1</sup>	1,136	1,063	11	-	-	-	-	-			
17 Total Customer Care	64,850	66,125	66,433	67,813	69,234	70,466	72,321	73,757			
18 Cost /Customer	66.97	67.67	67.36	68.12	68.89	69.46	70.62	71.34			

#### Notes:

1. Costs for 2004 and 2005 are actual O&M costs relating to TGV's customer care function pre Banner CIS conversion; costs for 2006 to 2015 is the revenue requirement of the Banner CIS conversion.

The notional cost projections are for the existing customer care arrangement and scope of services provided, which differs from the scope of services proposed in the Amended Application. The cost projections are characterized as being notional because the Company believes that the current customer care arrangement is unsustainable for the reasons set out in the Amended Application.

113.2 Please provide the supporting calculation for the notional \$71.70 levelized cost of the current customer care function.

#### Response:

The calculation of the notional \$71.70 levelized cost of the current customer care function is found in confidential spreadsheet 1 (Financial Model) on the Cost per Customer tab on rows 92-100. Row 92 summarizes the notional cost of the existing customer care function and does not



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include the cost to place it on a sustainable and comparable footing with that proposed by the Company in its Amended Application for restructuring the customer care function. The components included in this cost are set out in the response to BCUC IR 1.113.1.





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#### **114.0 Reference: FINANCIAL ANALYSIS**

##### **Exhibit B-5, 2009 CPCN Application Workshop, Slide 20**

##### **Exhibit B-4-2, Appendix X (Confidential Filing), Excel Copy 2 Detailed Project Costs**

##### **Exhibit B-4, Chapter 6 Project Cost, Sec 6.8 The Impact of IFRS on the Cost of Service, p. 120**

##### **Exhibit B-4, Chapter 2 Project Description and Schedule, Sec 2.2.2 Current Customer Care Costs, Table 2.2, p. 17**

##### **Deferred O&M and IFRS**

In Exhibit B-5, slide 20, Capital costs are \$108.5 million, Deferred O&M \$10 million, and AFUDC is \$3.5 million (total \$122 million); however, in the confidential filing Appendix X, Copy 2, Tab CCE Project costs, Cell AO387 the breakdown of the \$122 million Project costs between O&M and Capital is significantly different.

- 114.1 Is the increase in the amount allocated to O&M due to the application of IFRS?  
If not, what is the reason for the significant difference?

#### **Response:**

Yes, the difference in the breakout of project costs highlighted in confidential spreadsheet 2 (Detailed Project Costs) on the CCE Project Costs tab, in cell AO387, is due to the treatment of project costs as O&M and not as capital under IFRS. Rows 382 to 390 on this tab indicate in summary form how Project costs are treated following current accounting rules and how they would be treated following the requirements of IFRS.

"For the purposes of updating the financial analysis we assumed that current approved accounting practices remain unchanged. We have however reviewed the impact of the proposed changes resulting from International Financial Reporting Standards ("IFRS"). The changes contemplated by IFRS, as well as changes to the overhead capitalized rate and depreciation rate, would result in a levelized cost per customer of \$70.19. Compared with the levelized cost of \$67.50, these changes would increase the cost per customer by \$2.69." (Exhibit B-4, Chapter 6 Project Cost, Sec 6.8 The Impact of IFRS on the Cost of Service)



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- 114.2 On January 1, 2012 when the system goes live, will the Company be reporting under IFRS for financial reporting purposes?

**Response:**

Yes. Terasen Gas will be reporting under IFRS for financial reporting purposes when the system goes live.

- 114.3 Did the Company recently file Terasen Gas Inc. ("TGI") and Terasen Gas Vancouver Island ("TGVI") 2011 Revenue Requirement Applications ("RRA") under IFRS?

**Response:**

Yes, TGI and TGVI filed their respective 2011 Revenue Requirement Applications under IFRS. Please see the response to BCUC IR 1.114.4 for a description of the rationale for filing the Amended Application under currently approved accounting standards, and a reference to the additional material filed incorporating the IFRS changes.

- 114.4 If the Company intends to report under IFRS in 2012 and has prepared its 2011 RRA under IFRS, what is the rationale for preparing this Application under currently approved accounting practices?

**Response:**

The Company prepared this Application under currently approved accounting practices, an approach that is typically followed in preparing these types of Applications. Specific to this Application, this approach is important for two reasons:

1. In this Application, Terasen Gas wanted to demonstrate the impact of the Customer Care Enhancement Project independently of any accounting changes, so that the real impact of the Project could be understood;
2. Terasen Gas believes that the issues related to the timing of adoption and treatment of IFRS changes for regulatory purposes should be largely confined to the RRA.



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The Company has included information to demonstrate the impact to the Project under IFRS in section 6.8 of the Application. This additional information was provided to aid in understanding how customers' rates will be affected by the Project, assuming that the accounting treatment under IFRS as proposed in the RRA is accepted by the Commission and by the Company's external auditors.

The inclusion of both analyses in the Application therefore provides the Commission and participants a more complete understanding of the Project impacts.

- 114.5 The Company has stated that the financial analysis was prepared under currently approved accounting practice which is Canadian GAAP; however, by 2012, when the system goes live and rates are impacted, Canadian GAAP will have adopted IFRS. Therefore, would it not be more appropriate for the \$122 million Project costs to be allocated between O&M and Capital based on IFRS?

**Response:**

Please refer to the response to BCUC IR 1.114.4.

- 114.5.1 Would it not be more appropriate for the financial analysis relating to the amortization and depreciation of the \$122 million Project costs starting in 2012 to be calculated based on IFRS?

**Response:**

Please refer to the response to BCUC IR 1.114.4.

- 114.6 When preparing the financial analysis for internal decision making purposes, was the financial analysis prepared under both current Canadian GAAP and IFRS?

**Response:**

Yes, the financial analysis was prepared under both current Canadian GAAP and IFRS.



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114.6.1 If yes, please file the IFRS version of the financial analysis with the Commission.

**Response:**

This response is provided to the Commission confidentially under separate cover. In order to not prejudice dealings and negotiations with other parties TGI needs to maintain confidentiality of the information provided in this response and limit its disclosure.

114.6.2 If not, how was the \$2.69 increase in the levelized cost under IFRS calculated?

**Response:**

Please see the response to BCUC IR 1.114.6.1.

114.7 Please clarify further how the \$2.69 increase in levelized cost under IFRS resulted. This should be explained in a calculated breakdown reconciling the Canadian cost to the IFRS cost. Please include a breakdown of the cost increase/decrease due to the changes in overhead rates, and the cost increase/decrease due to the change in amortization rate. Also include a description of why the depreciation rate under Canadian GAAP would vary from IFRS.

**Response:**

The Company conducted additional financial analysis for the Project that took into consideration the accounting changes and IFRS changes as proposed in the Revenue Requirement Applications. The changes driven by IFRS in the Customer Care Enhancement Project model include expensing training costs previously capitalized and changing the commencement of depreciation. In its RRA, the Company has proposed several accounting policy changes that, although in compliance with IFRS, are not specifically driven by IFRS. These changes, as they relate to the Customer Care Enhancement Project, include updating the capitalized overhead rate, updating the depreciation rates, and discontinuing the treatment of software tax savings as a contribution in aid of construction.



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As noted in the response to BCUC IR 1.114.6.1, the accounting changes and IFRS version of the financial analysis was revised to reflect the corrections to the Project's financial model as filed on October 2, 2009. These corrections result in a change to the levelized cost per customer associated with the accounting changes and IFRS impacts from a \$2.69 increase to a \$0.72 increase.

The following table reconciles the total levelized costs of the project under existing Company accounting practices with the levelized costs of the project under proposed accounting changes and IFRS.

	Levelized Costs	Levelized Customers	Levelized Cost Per Customer
Revised Total Levelized Cost as filed on October 2, 2009	\$ 754,646,732	11,285,168	\$ 66.87
<u>Add Accounting Changes &amp; IFRS Impacts</u>			
Overhead Capitalized Rate	(363,872)		(0.03)
Depreciation Commencement	(4,795,123)		(0.42)
Depreciation Rate	407,192		0.04
Project Training Costs to O&M	7,902,663		0.70
Software Tax Savings	5,019,155		0.44
	8,170,015		0.72
Levelized Cost Per Customer Including Accounting Changes & IFRS	<u>\$ 762,816,746</u>		<u>\$ 67.59</u>

The largest contributing factor of the \$0.72 increase in the levelized cost per customer is the treatment of training costs. In the existing accounting practices version of the financial model, the training costs are included in the capital spending and depreciated and retired with software. In the accounting changes and IFRS version of the financial model, the training costs are included with the O&M expenses.

The depreciation rate change reflects the change from the existing depreciation rates to that of the proposed rates as identified by Gannett Fleming's depreciation study and proposed by the Company in the RRA proceedings. This change has a very minimal impact on the levelized costs and no impact on a per customer basis.

- 114.8 Have you applied a negative salvage value to this Project in your calculation of depreciation under IFRS? Please quantify the salvage amount, including a description of whether positive or negative, under IFRS and describe what costs are associated with taking the asset out of service.



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**Response:**

No, a negative salvage value has not been applied to this project in the calculation of depreciation under IFRS. Negative salvage (removal) costs are anticipated only for transmission, LNG and distribution plant and not for general plant (which includes hardware and software).

- 114.9 Will the Base Contract Costs (CSA) on line 1 of Table 2.2, used to calculate the annual total customer care cost of the existing solution change under IFRS, and if so by how much?

**Response:**

No, the base contract costs are not anticipated to change under IFRS.



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**115.0 Reference: FINANCIAL ANALYSIS**  
**Exhibit B-4, Chapter 2 Project Description and Schedule, 2.3.2.1 Call**  
**Centre Components, p. 24**  
**Call centre**

"It is anticipated that the capital cost to establish the call centre operation, including technologies, will be \$33.2 million, excluding AFUDC, plus \$7.7 million in deferred O&M. On an ongoing basis the cost to support this area of operations will be \$16.1 million annually."

- 115.1 Does either the \$33.2 million or \$7.7 million include the anticipated transition costs to complete a scope change or a cancellation of the existing CWLP/Accenture contract?

**Response:**

Yes, transition costs that are associated with the planned scope change of the existing Client Services Agreement with CustomerWorks LP are included as part of the Call Centre project capital costs. No other transition costs are included as part of the Call Centre Implementation or its projected ongoing O&M costs that will be required to support the new customer care function.

- 115.2 Specifically relating to the call centre how much is AFUDC estimated to be?

**Response:**

Total AFUDC related to the implementation of the two call centres is estimated to be approximately \$346,000.

- 115.3 Do the ongoing costs of \$16.1 million include the depreciation and amortization of the \$33.2 million capital cost and the \$7.7 deferred O&M costs?

**Response:**

No, the ongoing cost of \$16.1 million only represents the projected O&M cost that is required to support the new customer care function in 2012. This cost does not represent a complete cost of service as suggested by items such as depreciation and amortization of project capital and



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deferred O&M costs. Please refer to the response to BCUC IR1.124.1 that sets out the cost of service of the Call Centre implementation and its ongoing operation.

Please also refer to the response to BCUC IR1.119.1 where a number of transcription errors are noted and corrections provided. Although these corrections affect some of the numerical references made in the preamble to BCUC IR 1.115.3, they have no bearing on the response provided in the paragraph above.

- 115.4 Do the ongoing costs of \$16.1 million include the cost of capital on the \$33.2 million and \$7.7 million investment or capitalized overhead?

**Response:**

Please refer to the response to BCUC IR 1.115.3.

- 115.5 If the call centre costs do not included depreciation, amortization, capitalized overhead and cost of capital please recalculate the total call centre costs to include these amounts.

**Response:**

Please refer to the response to BCUC IR1.124.1 that sets out the cost of service of the Call Centre implementation and its ongoing operation.





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**116.0 Reference: FINANCIAL ANALYSIS**  
**Exhibit B-4, Chapter 2 Project Description and Schedule, 2.3.3.2**  
**Billing and Back Office Operations Costs, p. 24**  
**Billing and back office**

"It is expected that the capital cost to set up billing and back office operations will be \$11.5 million, excluding AFUDC, plus \$2.4 million in deferred O&M. Going forward the annual operating cost, including the cost associated with the ongoing outsourced processes are expected to be \$27.5 million per year."

116.1 Does either the \$11.5 million or \$2.4 million include the anticipated transition costs to enforce a scope change or a cancellation of the existing CWLP/Accenture contract?

**Response:**

Yes, transition costs that are associated with the planned scope change of the existing Client Services Agreement with CustomerWorks LP are included as part of the Billing and Back Office Implementation project capital costs. No other transition costs are included as part of the Billing and Back Office Implementation or its projected ongoing O&M costs that will be required to support the new customer care function.

116.2 Specifically relating to the billing and back office operations how much is AFUDC estimated to be?

**Response:**

Total AFUDC related to the Billing and Back Office implementation is estimate to be approximately \$108,000.

116.3 Do the ongoing costs of \$27.5 million include the depreciation and amortization of the \$11.5 million capital cost and the \$2.4 deferred O&M costs?

**Response:**

No, the ongoing cost of \$27.5 million only represents the projected O&M cost to support the new customer care function in 2012. This cost does not represent a complete cost of service as



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suggested by items such as depreciation and amortization of project capital and deferred O&M costs. Please refer to the response to BCUC IR1.124.1 that sets out the cost of service of the Billing and Back Office implementation and its ongoing operation.

Please also refer to the response to BCUC IR1.119.1 where a number of transcription errors are noted and corrections provided. Although these corrections affect some of the numerical references made in the preamble to BCUC IR 1.116.3, they have no bearing on the response provided in the paragraph above.

- 116.4 Do the ongoing costs of \$27.5 million include the cost of capital on the \$11.5 million and \$2.4 million investment or capitalized overhead?

**Response:**

No, the ongoing cost of approximately \$27.5 million only represents the projected O&M cost to support the new customer care function in 2012. This cost does not represent a complete cost of service as suggested by items such as the cost of capital or capitalized overhead of project capital and deferred O&M costs. Please refer to the response to BCUC IR1.124.1 that sets out the cost of service of the Billing and Back Office implementation and its ongoing operation.

Please also refer to the response to BCUC IR1.119.1 where a number of transcription errors are noted and corrections provided. Although these corrections affect some of the numerical references made in the preamble to BCUC IR 1.116.4, they have no bearing on the response provided in the paragraph above.

- 116.5 If the billing and back office operations costs do not include depreciation, amortization, capitalized overhead and cost of capital please recalculate the total billing and back office costs to include these amounts.

**Response:**

Please refer to the response to BCUC IR 1.124.1 that sets out the cost of service of the Billing and Back Office implementation and ongoing operations.

Please also refer to the response to BCUC IR1.119.1 where a number of transcription errors are noted and corrections provided. Although these corrections affect some of the numerical



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references made in the preamble to BCUC IR 1.116.5, they have no bearing on the response provided in the paragraph above.



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**117.0 Reference: FINANCIAL ANALYSIS**  
**Exhibit B-4, Chapter 1 Application, Sec 1.1.4 Project Costs and Rate Impact**  
**Exhibit B-4, Appendix K, Schedule S7 Cost Per Customer Chart**  
**Levelized costs**

"On a levelized basis over a 20 year period starting in 2012, the changes implemented as part of this Project result in an annual cost of \$67.50 per customer for the new customer care delivery model..."

117.1 Please calculate the levelized cost per customer over an 8 year period to match the depreciation rate on the CIS software and installation costs.

**Response:**

As noted in the response to CEC IR 1.1.1, although an eight year time frame corresponds with the accounting life of the software assets, Terasen Gas has evaluated the Project over a twenty year period because it represents the foreseeable timeframe that the proposed solution will be used for providing customer care services. TGI believes the approach it has used is most appropriate.

When recalculated over an eight year period, the levelized cost per customer is approximately \$71.59, as compared to the revised levelized cost per customer of \$66.87 over the twenty year period.



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**118.0 Reference: FINANCIAL ANALYSIS**  
**Terasen Utilities ROE & Capital Structure, Exhibit B-1**  
**Impact of changes to ROE and Capital Structure**

Terasen is currently seeking approval from the Commission to increase its Return on Equity and Equity thickness.

118.1 In the event that the Commission approves the Company' application, how would the 'Revenue Requirement and Rate Impact Analysis' in Schedule S5, Appendix K, be impacted. Please recalculate over an 8 year period under IFRS and under the assumption that approval is granted as requested.

**Response:**

Please see Attachment 118.1.

In Attachment 118.1, the revenue requirement and rate impact of the approval of the Return on Equity and Equity thickness, as well as the accounting changes and IFRS, have been compared to the revised financial analysis filed on October 2, 2009.

118.1.1 What would the cost per customer and the levelized cost per customer be over an 8 year period?

**Response:**

When the impact of the changes to the return on equity, capital structure as well as the accounting changes and IFRS impacts are considered, the annual cost per customer is as follows:

	2012	2013	2014	2015	2016	2017	2018	2019
<b>Consolidated</b>								
Customer Care Costs								
CCE Customer Care O&M	44,534	45,835	47,369	48,954	50,601	51,849	52,929	54,629
CCE other Cost of Service	19,956	29,813	32,504	30,118	23,620	13,418	8,264	7,737
TGVI Banner to Energy Conversion	1,202	1,132	1,061	11	-	-	-	-
Total Customer Care Costs	65,691	76,781	80,934	79,084	74,221	65,267	61,193	62,366
Average Customers	959,757	968,338	977,113	987,030	996,311	1,005,709	1,015,228	1,024,868
<b>Cost Per Customer</b>	<b>\$ 68.45</b>	<b>\$ 79.29</b>	<b>\$ 82.83</b>	<b>\$ 80.12</b>	<b>\$ 74.50</b>	<b>\$ 64.90</b>	<b>\$ 60.28</b>	<b>\$ 60.85</b>



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The resulting levelized cost per customer over the eight year period is \$72.19. The resulting levelized cost per customer over the twenty year period is \$68.50.

As noted in the response to CEC IR 1.1.1, although an eight year time frame corresponds with the estimated life of the software assets for accounting purposes, Terasen Gas has evaluated the project over a twenty year period because it represents the foreseeable timeframe that the proposed solution will be used for providing customer care services.



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**119.0 Reference: FINANCIAL ANALYSIS**

**Exhibit B-4, Chapter 2 Project Description and Schedule, Sec 2.3.3.2  
Billing and Back Office Operations Costs, p. 27**

**Exhibit B-5, 2009 CPCN Application Workshop, Slide 20**

**BILLING AND BACK OFFICE SPLIT – CAPITAL/O&M**

- 119.1 On page 27 of the Application the Company states that the expected capital cost to set up the billing and back office operations will be \$11.5 million, excluding AFUDC, plus \$2.4 million in deferred O&M; however, in Exhibit B-5, slide 20, capital costs are \$10.97 million and deferred O&M is \$2.93. Depreciation and amortization rates for capital and deferred O&M are different and as a result the revenue requirement under each scenario will also be different. Please explain the reason for the inconsistencies in the exhibits, and which is the correct amount?

**Response:**

A review of the costs referenced in section 2.3 of the Amended Application indicates that a number of transcription errors were made when costs were recorded in this section, in addition to those noted by the Commission on page 27. Costs presented in Exhibit B-5, 2009 CPCN Application Workshop, Slide 20 are correct and match the costs used to complete the financial analysis. The following corrections are applicable to pages 24 and 27 of the Amended Application:

- page 24 – Call Centre Costs - \$7.7 million in deferred O&M should be \$7.2 million;
- page 24 – Call Centre Costs - \$16.1 million in support costs should be \$15.9 million;
- page 27 – Billing and Back Office Costs - \$11.5 million in capital costs should be \$11.0 million;
- page 27 – Billing and Back Office Costs - \$2.4 million in deferred O&M should be \$2.9 million;
- page 27 – Billing and Back Office Costs - \$27.5 million in support costs should be \$27.7 million;

Replacement pages for pages 24 and 27 correcting these transcription errors will be filed in a revision to the Amended Application on October 2, 2009.



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As noted above, these transcription errors do not affect the financial analysis that was completed in support of the Amended Application. They are noted to ensure that numerical references in the Application narrative tie fully into the financial schedules.





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**120.0 Reference: Financial Analysis  
Exhibit B-4, Appendix K, Schedules S3a and S5,  
Rate Base**

The Rate Base Summary, lines 1-4 provide a running reconciliation showing how the project directly impacts Gas Plant in Service. The project life displayed in the calculation extends to 2031. The beginning asset balance is nil. Gas plant additions are added to the asset base and retirements are subtracted from the asset base over the project over its lifetime.

- 120.1 Please describe why "negative" additions are made to gas plant in service on line 2 of the summary and why an equal amount is added to the Revenue Requirements and Rate Impact Analysis on Schedule S5?

**Response:**

The "negative" additions to gas plant in service represent the incremental change in capitalized overhead associated with this Project. The addition is negative because the proposed operating and maintenance savings result in lower capitalized overhead and correspondingly, incrementally less plant additions.

The incremental capitalized overhead is calculated as sixteen per cent (eight per cent in the accounting changes and IFRS version) of the operating and maintenance expense difference between the existing client services agreement and the proposed customer care enhancement project.

The incremental capitalized overhead is also shown on Schedule S5 to demonstrate the net incremental operating and maintenance expense, which is a key component of the incremental cost of service associated with the Project.

- 120.2 Please explain why the closing gas plant in service balance on line 4, is projected to be a negative amount in 2029-2031.

**Response:**

As noted in the response to BCUC IR 1.120.1, the forecast capitalized overhead is lower under the Customer Care Enhancement Project than that associated with the existing client services agreement, resulting in negative incremental additions to gas plant in service. These negative additions, compounded by the retirement of earlier plant additions, are only slightly offset by



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recurring hardware and software additions and result in a negative closing gas plant in service balance.

Lines 6-9 show a running accumulated total depreciation on gas plant assets in service. The amount is increased by accumulated depreciation charges less retirement amounts. Fully depreciated assets are removed from both the asset and accumulated depreciation amounts.

120.3 Please describe why amortization charges on line 7 are projected as positive amounts in 2029-2031.

**Response:**

The positive amortization charges are a result of the negative incremental capitalized overhead as discussed in the responses to BCUC IR 1.120.1 and BCUC IR 1.120.2; the incremental capitalized overhead produces negative additions to gross plant in service which correspondingly results in an offsetting positive depreciation expense.

This positive depreciation expense, compounded by the retirement of earlier plant additions, is only slightly offset by the depreciation expense associated with recurring hardware and software additions and results in a positive total depreciation expense.

120.4 Please explain why the closing accumulated amortization balance on line 9, is projected to exceed the carrying value of the related asset account, the gas plant in service per line in 2020 and onwards. Also, please describe how an asset can have accumulated amortization in excess of its carrying value.

**Response:**

An asset should not have accumulated amortization in excess of its carrying value; however, for incremental project analysis and modeling purposes, it may be possible for the gross plant balance to be negative and conversely for the accumulated depreciation balance to be positive if plant additions are lower than the comparison point.



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As noted in the responses to BCUC IR 1.120.1, BCUC IR 1.120.2 and BCUC IR 1.120.3, the impact of the lower incremental capitalized overhead results in negative plant additions and positive depreciation expense.

Please refer to the revised financial schedules as filed on October 2, 2009. The financial schedules filed on August 28, 2009 were based on a financial model that contained cell reference errors related to retirements and depreciation expense and this caused errors in the carrying value of the assets as well as the accumulated depreciation on the financial schedules. This was corrected in the schedules filed on October 2, 2009.

Lines 11-14 show a running total of contributions in aid of construction. Lines 16-19 show a running total of accumulation on this amount.

120.5 Please describe the source of this contribution.

**Response:**

These contributions represent the currently approved CIAC treatment of the software tax savings and are calculated as the tax value of the CCA associated with the software. The contribution amount is then amortized over the same period as the related software.

In the 2010-2011 RRA, the Company has proposed to discontinue the CIAC treatment of tax savings associated with software additions. As such, this change in accounting treatment has been reflected in the accounting changes and IFRS version of the financial analysis for this project, with the impact of the change identified in the response to BCUC IR 1.114.7.

120.6 Please explain why the contribution account has not been fully depreciated at the end of 2031 (line 14 verses line 19).

**Response:**

As noted in the response to BCUC IR 1.120.5, the contributions are in relation to software tax savings and are amortized over eight years.

The contribution amounts from the initial software related additions are fully amortized in the eight year period; however, there are also relatively minor recurring software additions that



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occur throughout the project analysis period. Subsequent contributions are calculated from these recurring software additions and amortized over an additional eight years and result in a remaining, albeit small, balance in the contribution account.

Lines 26-29 show a running total of deferred charges on the project. These charges are amortized over a life of 8 years, beginning in 2012.

120.7 Does this deferral account represent the depreciation of the deferred O&M cost of \$10.1 million?

**Response:**

Yes, the amortization is related to the balance in the requested deferral account as noted in the response to BCUC IR 1.1.1. Although the main component of the incremental cost is the estimated \$10.1 million in O&M costs referred to in the question above, the deferral account will also capture any amounts related to the timing of when the Project is available for use and when it is added into rate base.

120.8 Please explain why the balance is amortized over 8 years.

**Response:**

An amortization period of eight years was deemed reasonable and applied to the forecast deferral account balance because it is consistent with the depreciation period for the majority of the assets associated with this Project. This amortization period also helps to provide some customer rate impact mitigation.

120.9 Does the shareholder benefit from the Company's involvement in ministry committees, the education of the government on the Company's business, and advocating for how the Company can play a role in meeting provincial energy objectives? Please discuss.



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**Response:**

The Project does not have any bearing on the extent to which the Company intends to be involved in such activities as outlined in the question. Please refer to the response to TGI 2010-2011 Revenue Requirements Application BCUC IR 2.2.1.

120.9.1 How should these benefits and costs be shared between customers and shareholders?

**Response:**

Please refer to the response to BCUC IR1.120.9.



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**121.0 Reference: FINANCIAL ANALYSIS**

**Exhibit B-4, Chapter 6 Project Costs, Sec 6.3.1 Updated Ongoing O&M Costs, p. 112**

**Exhibit B-4, Appendix K, Schedule S3**

**Rate Base - Capital Lease**

"For the purpose of providing a summary of future costs to support the new customer care function, the Facilities Support component provided in the table above includes the cost of the expected lease of the Lower Mainland Contact Centre. This lease will not, however, be treated as an operating expense, but rather as a capital lease when the cost of the lease is incurred. Terasen Gas believes that once this lease is negotiated it may be treated as a capital lease. This treatment was also selected because it results in a more conservative impact on the cost of service than if it was assumed to be an operating lease."

- 121.1 Please confirm that the annual lease payments for the Lower Mainland call centre are included in the total 'Projected Ongoing O&M Costs' for 2012 of \$46.26 million.

**Response:**

Yes, the annual lease payments for the proposed Lower Mainland call centre are included in the total Projected Ongoing O&M Costs for 2012 of \$46.26 million. This inclusion however is only for the purpose of providing a simple, comprehensive summary of future support costs that will be needed to operate and maintain the new customer care function. The lease cost was specifically included in this summary because it will also be incurred on a regular basis like the other support costs.

As noted in the Amended Application on page 112, the cost of service was calculated assuming that the cost of this lease will be treated as a capital lease, not as an operating lease. As a result of this treatment the cost of the lease was removed from ongoing O&M costs in order to correctly calculate the revenue requirement for the Customer Care Enhancement Project.

Please also refer to the response to BCUC IR1.121.2.



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- 121.2 Please confirm if the annual lease payments for the Lower Mainland call centre are included in the "Estimated Customer Care O&M Costs" as calculated in Appendix K, Schedule S2.

**Response:**

Yes, the estimated annual lease payments for the proposed Lower Mainland call centre are included in the summary of the Estimated Customer Care O&M Costs as set out in Appendix K, Schedule S2. The lease cost was only included in this table for the purpose of providing a simple, comprehensive summary of future support costs that will be needed to operate and maintain the new customer care function. The lease cost was specifically included in this summary because it will also be incurred on a regular basis like the other support costs. This is unlike the Project capital costs that will only be incurred over a fixed period of time while the customer care changes are implemented.

The accounting treatment of the lease will, however, be different than all other support costs. For purposes of calculating the cost of service associated with the Project, the lease has been accounted for as a capital lease and the annual estimated lease payment of \$1.7 million has been removed from the O&M costs. The costs associated with the capital lease treatment impact the cost of service through depreciation expense, tax expense and earned return.

As noted in the response to BCUC IR 1.80.1, the terms of the lease agreement and the application of the accounting standard to the specific terms of the agreement will determine whether the expected lease for the Project is classified as an operating or capital lease and the applicable costs will be reflected as such. As pointed out in the Amended Application, a capital treatment was selected because the cost of service impact result is slightly more conservative than that caused by an operating lease. This means that treatment as an operating lease would reduce the cost of service relative to a capital lease.

- 121.3 What does line 'Capital Lease Rate Base' in Schedule S3, Appendix K that amounts to \$16.7 million for TGI, TGVI, and TGW combined refer to? Is it the capitalization of the Lower Mainland Contact Centre lease?

**Response:**

Yes, the Capital Lease Rate Base line in Schedule S3 represents the mid year rate base associated with the projected capital lease of the Lower Mainland Contact Centre, including any leasehold improvements.



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121.3.1 If yes, please provide details of the calculation.

**Response:**

Please see Attachment 121.3.1.

Please note that Attachment 121.3.1 reconciles to the revised financial schedules filed on October 2, 2009.





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**122.0 Reference: FINANCIAL ANALYSIS**

**Exhibit B-4, Chapter 6 Project Costs, Sec 6.4 Cost of Service and Rate Impact Analysis, p. 113**

**Exhibit B-4, Appendix K, Schedule S7**

**CIS system replacement after depreciation period**

"The increase in the cost to the customer over the first eight years after the Project is implemented is caused primarily by the depreciation of the new CIS platform and service delivery infrastructure. This infrastructure is the critical enabler that allows Terasen Gas to provide future customer care service on a sustainable and more cost efficient basis than would be possible if the current outsourcing arrangement was continued after 2011."

- 122.1 On Schedule S7 the 'Cost per Customer' reduces significantly after 2020 when the CIS software and installation costs have been fully depreciated. Give that the useful life of the CIS software is currently estimated to be between 8 and 10 years when does the company estimate that the CIS system will need to be replaced? If replacement and installation of a new CIS system were required in 2021 how would this impact the 'Cost per Customer' as calculated in Schedule S7?

**Response:**

Terasen Gas is not contemplating replacing the SAP CIS in the foreseeable future. SAP is the foundation of Terasen Gas' information technology architecture. SAP's track record is one of continued investment in research and development, and TGI expects this will continue. SAP's utility solution (of which CIS is a part) is installed in over 600 utilities worldwide and continues to grow (41 new customers in the last year according to SAP – the most of any Utility CIS software provider in that timeframe according to Gartner). SAP software is installed in over 30,000 companies worldwide. In light of those facts, TGI contemplates continuing to use SAP as the foundation of our information technology architecture beyond 2021.



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**123.0 Reference: FINANCIAL ANALYSIS**  
**Exhibit B-4, Appendix K, Schedule S2**  
**Relief for future O&M costs**

- 123.1 The Company has projected estimated customer care costs for periods starting in 2012 and beyond. Is the Company seeking approval from the Commission to recover these O&M costs in future revenue requirements applications?

**Response:**

No, the Company is not seeking approval from the Commission to recover O&M costs starting in 2012 as part of this Application. Future O&M costs starting in 2012 will be the subject of revenue requirements applications specifically for 2012 and beyond.

The Company provided an estimate of O&M for 2012 and beyond in order to complete a meaningful analysis of the incremental costs or savings that will result from the implementation of the Project. The outcome of this analysis is an important consideration in evaluating the merits of the proposed Project.

- 123.2 If the Company was to go into another PBR period who would benefit from efficiencies in future O&M costs as outlined in Schedule S2, the ratepayer, the shareholder, or a shared benefit?

**Response:**

Please refer to the response to BCUC IR 1.57.3.





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Please provide the following sensitivity analysis by completing the table under the following assumptions:

- a) Under IFRS accounting standards; and
- b) Under ROE and equity thickness as currently applied for to the Commission;  
and
- c) Increase in estimated ongoing O&M cost by 20 percent.

**Response:**

Please see Attachment 124.1.

In addition to the requested analysis, Attachment 124.1 includes the following:

- 1) Revised results as filed on October 2, 2009;
- 2) Decrease in estimated ongoing O&M cost by 20 percent;
- 3) Increase in estimated ongoing O&M cost by 10 percent;
- 4) Decrease in estimated ongoing O&M cost by 10 percent.

An increase or decrease in the ongoing operating cost of the project of 20 percent is unlikely in the Company's view; therefore, a scenario involving the impact of a 10 percent increase or decrease was added to the analysis to provide context. Although not anticipated, an increase or decrease in the ongoing operating costs of the project of 10 percent is a more reasonable scenario than a 20 percent change.



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**125.0 Reference: FINANCIAL ANALYSIS**

**Exhibit B-4, Chapter 6 Project Costs, Sec 6.4.2 Rate Impact and  
Financial Analysis Approach, A. Rate Impact, p. 114**

**Exhibit B-4, Appendix K, Schedule S3a**

**Rate Base**

- 125.1 One of the amounts included in rate base is 'contributions in aid of construction'. Please explain how these cost materialized for this particular Project.

**Response:**

Please see the response to BCUC IR 1.120.5.



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**126.0 Reference: FINANCIAL ANALYSIS**  
**Exhibit B-4-2, Appendix X (Confidential Filing), Copy 1 Financial**  
**Model**  
**Contingency**

126.1 Please confirm that the following section of the spreadsheet consist of labour costs for the purchase, implementation and maintenance of the CIS system.

- A. CIS Implementation
- 1. IT Resources – Internal Labour

**Response:**

The preamble incorrectly refers to confidential spreadsheet 1, the Financial Model, while the question refers to confidential spreadsheet 2, the Detailed Project Costs.

TGI confirms that section "A. CIS Implementation" of confidential spreadsheet 2 includes all internal labour costs related to the CIS implementation. These costs include those found in subsection "1. IT Resources – Internal Labour" in rows 13-56.

126.1.1 Considering the Collective Agreement with COPE as filed in Appendix V has been negotiated, please explain why is a 17.4 percent contingency is required?

**Response:**

This response is provided to the Commission confidentially under separate cover. In order to not prejudice dealings and negotiations with other parties TGI needs to maintain confidentiality of the information provided in this response and limit its disclosure.

126.2 Please confirm that the following section of the spreadsheet consist of IT consulting costs relating to the CIS system.

- A. CIS Implementation
- 2. IT Resources – Consulting



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**Response:**

The preamble incorrectly refers to confidential spreadsheet 1, the Financial Model, while the question refers to confidential spreadsheet 2, the Detailed Project Costs.

TGI confirms that section "A. CIS Implementation" of confidential spreadsheet 2 contains all consulting costs related to the CIS implementation. These costs include those found in subsection "1. IT Resources – Consulting" on rows 62-90, and also those costs in rows 96-103 and 146-153.

126.2.1 Considering that the SAP software and implementation costs have been negotiated and are based on a fixed price contract, please explain why an 11.5 percent contingency is required?

**Response:**

This response is provided to the Commission confidentially under separate cover. In order to not prejudice dealings and negotiations with other parties TGI needs to maintain confidentiality of the information provided in this response and limit its disclosure.

126.3 Please confirm that the following section of the spreadsheet consist of expenses for the IT portion of the CIS system.

- A. CIS Implementation
- 6. IT Resources – Expense

**Response:**

This response is provided to the Commission confidentially under separate cover. In order to not prejudice dealings and negotiations with other parties TGI needs to maintain confidentiality of the information provided in this response and limit its disclosure.

126.3.1 Considering 60 percent of these costs are for HCL Axon consulting fees, which are based on a fixed price contract, please explain why is an 11.8 percent contingency is required?



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**Response:**

The contingency amount included as part of the expense cost category is required and necessary because expenses are not subject to a fixed fee arrangement. Expenses such as travel, accommodations, ground transportation, and per diem are charged when they are incurred and are reviewed monthly by the project management office. This allows the project to have greater control over this category of expenditure. It should also be noted that contingency associated with the expense category is for the entire project expenses, not just expenses related to HCL Axon.

For discussion on contingency as it pertains to HCL Axon consulting fees, please refer to the response to BCUC IR 1.24.1

126.4 Please confirm that the following section of the spreadsheet consist of labour costs for the call centre and billing and back office operations.

- B. Service Insourcing/ Call Centre Build
- 2. SI Resources - New Internal CC&BO Labour

**Response:**

The preamble incorrectly refers to confidential spreadsheet 1, the Financial Model, while the question refers to confidential spreadsheet 2, the Detailed Project Costs.

TGI confirms that section "B. Service Insourcing/ Call Centre Build" of confidential spreadsheet 2 contains all labour costs related to the call centre and billing and back office operations implementation. None of these costs however relate to the ongoing operations cost that would be treated as O&M after the Project is implemented. Total centre and billing and back office operations labour is located in subsection "2. SI Resources - New Internal CC&BO Labour" on rows 211-238.

126.4.1 Considering the Collective Agreement with COPE as filed in Appendix V has been negotiated, please explain why a 12.3 percent contingency is required?





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**Response:**

The response to this IR is being filed confidentially under separate cover at the request of COPE. In accordance with Commission Letter No. L-83-09, intervenors representing ratepayer groups may request access to this confidential material by executing the standard undertakings of confidentiality.

126.5 Please confirm that the following section of the spreadsheet consist of consulting costs for the call centre and billing and back office operations.

- B. Service Insourcing/ Call Centre Build
- 5. SI Resources - Consulting

**Response:**

This response is provided to the Commission confidentially under separate cover. In order to not prejudice dealings and negotiations with other parties TGI needs to maintain confidentiality of the information provided in this response and limit its disclosure.

126.5.1 Please confirm that transition costs are in effect a contingency and therefore no additional contingency amount would be expected to be calculated on this amount.

**Response:**

Transition costs are not a contingency but represent a cost that the Company must pay under the Client Services Agreement with CWLP given the need to reduce the scope of service provided through this agreement. This reduction in the scope of services is necessitated by the implementation of the Project. The total amount of the transition costs is still the subject of ongoing negotiations and once completed, the Company will reflect that cost certainty in the project budget. Please see the response to BCUC IR 1.126.5.2 for information on how the contingency has been applied.



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126.5.2 If transition costs are not included in the base contingency calculation, please explain why a 41 percent contingency is required for consulting costs to build the call centre?

**Response:**

The contingency amount included as part of the call centre and billing and back office implementation consulting costs is required because transition costs are included in the base contingency calculation. Please refer to the response to BCUC IR 1.126.5.1 for further details on transition costs. Once the negotiations with CWLP for transition costs are completed, Terasen Gas will reflect that cost certainty in the project budget including the contingency number associated with consulting costs for the call centre and back office billing components of the Project.

Terasen Gas believes that contingency should be treated as a risk mitigation factor either to address uncertainties due to a lack of detailed information at the time of the budget creation or as a safeguard against unforeseen events. It is Terasen Gas' intent to manage its contingency judiciously and ensure it is only utilized where absolutely necessary and appropriately justified and approved by the Executive Steering Committee.

126.5.3 How certain is management of the estimated cost for consulting relating to the call centre?

**Response:**

The Company feels that the budget and related contingency number accurately reflect what Terasen Gas understands as the activities and efforts required to successfully implement the call centre activities save one. That item, which the Company is still actively working on, is the transition costs. These costs, which have been itemized under "consulting", are the subject of ongoing negotiation with CWLP. Once finalized, the consulting and associated contingency numbers will be revised to reflect the cost certainty attained as the outcome of the negotiation.



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126.6 Please confirm that the following section of the spreadsheet consist of computer hardware costs for the call centre and billing and back office operations.

- B. Service Insourcing/ Call Centre Build
- 6. SI Resources - Hardware Call Centre

**Response:**

This response is provided to the Commission confidentially under separate cover. In order to not prejudice dealings and negotiations with other parties TGI needs to maintain confidentiality of the information provided in this response and limit its disclosure.

126.6.1 Please explain why a 25.9 percent contingency is required for hardware costs relating to the call centre?

**Response:**

The contingency amount included as part of the hardware cost category is required for 2 main purposes: 1) potential additional hardware; 2) potential changes to initial design specifications during implementation.

Until the completion of stress and volume testing, final system performance cannot be confirmed. Therefore, the contingency in part addresses the potential requirement for additional hardware to address performance concerns during the testing phase. Also, once detailed design is complete, there may be some miscellaneous items that were not accounted for in the initial design.

To put it in perspective, the amount shown for contingency on the hardware represents 1.8% of the contingency amount identified for the call centre and back office billing components of the Project.

Terasen Gas believes that the contingency reserve should be treated as a risk mitigation factor either to address uncertainties due to a lack of detailed information at the time of the budget creation or as a safeguard against unforeseen events. It is Terasen Gas' intent to manage its contingency judiciously and ensure it is only utilized where absolutely necessary and appropriately justified and approved by the Executive Steering Committee.



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126.7 Please confirm the following section of the spreadsheet consist of computer software costs for the call centre and billing and back office operations.

- B. Service Insourcing/ Call Centre Build
- 7. SI Resources - Software Call Centre

**Response:**

This response is provided to the Commission confidentially under separate cover. In order to not prejudice dealings and negotiations with other parties TGI needs to maintain confidentiality of the information provided in this response and limit its disclosure.

126.7.1 Please explain why a 25.2 percent contingency is required for computer software costs relating to the call centre?

**Response:**

The contingency amount associated with software costs represent approximately 4.3% of the overall contingency amount for the call centre and back office billing components of the Project. The contingency amount included as part of the computer software cost category is required because during the detailed design process, Terasen Gas may discover that it requires additional software licenses and associated support, which it is not currently accounted for in the budget.

Also, as was indicated in previous responses as it pertains to software, the proposal is not open indefinitely. The proposal from Aspect consulting is valid for six months (until February 17, 2010). In the event that approval is not reached by this date, Terasen Gas and Aspect would have to negotiate the terms of an extension. The contingency is in part to allow for this possibility.

Terasen Gas believes that contingency should be treated as a risk mitigation factor either to address uncertainties due to a lack of detailed information at the time of the budget creation or as a safeguard against unforeseen events. It is Terasen Gas' intent to manage its contingency judiciously and ensure it is only utilized where absolutely necessary and appropriately justified and approved by the Executive Steering Committee.



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126.8 Please confirm that the following section of the spreadsheet consists of O&M expenses for the call centre and billing and back office operations.

- B. Service Insourcing/ Call Centre Build
- 8. SI Resources - Expenses

**Response:**

This response is provided to the Commission confidentially under separate cover. In order to not prejudice dealings and negotiations with other parties TGI needs to maintain confidentiality of the information provided in this response and limit its disclosure.

126.8.1 Please explain why a 20.2 percent contingency is required for expenses relating to the call centre?

**Response:**

This response is provided to the Commission confidentially under separate cover. In order to not prejudice dealings and negotiations with other parties TGI needs to maintain confidentiality of the information provided in this response and limit its disclosure.

126.9 Overall, a contingency of 15.8 percent (excluding transition costs) has been included in the \$122 million Projects cost for call centre and billing and back office operations. What is the certainty of the Company's estimate for the call center and the billing and back office and why is such a large contingency still required?

**Response:**

The CIS implementation component of the Project has greater cost certainty than the call centre and back office components of the Project. The relative percentage of contingency for those two components reflect that relative degree of certainty – 15.8% for the call centre / back office vs. 10.5% for the CIS implementation. Terasen Gas believes that the contingency numbers associated with call centres and back office are prudent and necessary for the work efforts that are required.

Terasen Gas believes that contingency should be treated as a risk mitigation factor either to address uncertainties due to a lack of detailed information at the time of the budget creation or



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as a safeguard against unforeseen events. It is Terasen Gas' intent to manage its contingency judiciously and ensure it is only utilized where absolutely necessary and appropriately justified and approved by the Executive Steering Committee.

Please refer to the responses to BCUC IR1 126.4.1, 126.5.1, 126.5.2, 126.5.3, 126.7.1, and 126.8.1 for additional details.

- 126.10 Considering that the negotiations for the purchase of the land and building in Prince George are now complete, can the contingency relating to this portion of the Project be removed from the \$122 million estimated Project costs?

**Response:**

No, the contingency amount included for the establishment of the Prince George call centre remains necessary and is required. Although an agreement has been reached for the purchase of a building that is planned to be used as a call centre, this agreement is conditional upon regulatory and TGI management approval. This conditional acceptance is in the form of a "subject to" clause. The agreement currently has a date of January 31, 2010, requiring the removal of all subjects. The Company has had preliminary discussions with the building owner and feels comfortable that an extension to the proposed decision date as identified in the Exhibit B-4 Chapter 1, Sec 1.3 Proposed Regulatory Agenda and Timetable, page 10 can be achieved without impact to the Project or customers. Should a longer extension be required, it could result in changes to the commercial terms of the agreement. Additionally, this contingency is also needed because it addresses uncertainties concerning the improvements that need to be made to the building so that it is suitable for use as a call centre as envisioned in the Project.

Terasen Gas believes that contingency should be treated as a risk mitigation factor either to address uncertainties due to a lack of detailed information at the time of the budget creation or as a safeguard against unforeseen events. It is Terasen Gas' intent to manage its contingency judiciously and ensure it is only utilized where absolutely necessary and appropriately justified and approved by the Executive Steering Committee.



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**127.0 Reference: FINANCIAL ANALYSIS  
Exhibit B-4, Appendix K  
Consolidation**

127.1 Please file a consolidated (TGI – TGVI- TGW) version of Appendix K.

**Response:**

Please see Attachment 127.1. Please note that consolidated version of Appendix K reflects the revised financial analysis as filed on October 2, 2009.



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**128.0 Reference: FINANCIAL ANALYSIS**  
**Exhibit B-4, Appendix K, Schedule S2**  
**Estimated future O&M costs**

- 128.1 Please provide further breakdown for the facilities support costs or \$3.189 million in 2012. Have amounts been included for repairs and maintenance, utilities, cleaning, etc.

**Response:**

The \$3.189 million in facilities support costs that are expected to be incurred in 2012 is comprised of the lease of the Lower Mainland call centre building, and the estimated cost to light, heat, cool, clean, and maintain the two call centre buildings. This cost also includes the maintenance requirements for the telephony system, telephones, personal computers, and printers.

These costs will be treated in two different ways from an accounting perspective. All costs except for those relating to the lease of the Lower Mainland call centre building will be classified as an O&M expense. The lease may be treated as a capital lease. As noted in the Amended Application on page 112, although the cost of the Lower Mainland call centre lease is included in the projected support costs for 2012 for the purpose of reporting future operating and maintenance costs, it may be treated as a capital lease. This determination will be made after the lease is negotiated and its full terms and conditions are known.

Please also refer to the response to BCUC IR1.121.2.

- 128.2 Are the amounts in 2012 in 2009\$ or 2012\$? Please explain the rationale for the method selected.

**Response:**

Section 6.5.2 of the Amended Application describes the approach taken in the development of the projected costs of the new customer care function. All amounts have separate inflation assumptions applied to labour and materials so that costs in 2012 are representative of costs that are expected to be incurred in 2012. This method for determining the appropriate future O&M costs is consistent with the requirements to complete the revenue requirement analysis that is needed to support the Amended Application.





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128.3 If the 2012 amounts were all in 2012\$ how would the results in table Schedule S2 change?

**Response:**

Please refer to the response to BCUC IR1.128.2. All O&M amounts for 2012 are appropriately inflated so that they represent costs that are expected to be incurred in 2012. As a result of this approach, the amounts in Schedule S2 for 2012 would not change.



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**129.0 Reference: FINANCIAL ANALYSIS**  
**Exhibit B-4, Chapter 6 Project Costs, Sec 6.2 Summary Project**  
**Implementation Costs**  
**AFUDC**

129.1 Please provide a detailed calculation for the AFUDC of \$3.540 as shown in Table 6.1.

**Response:**

Please see Attachment 129.1.

Please note that minor difference that exists between the total AFUDC shown in Attachment 129.1 and the total AFUDC in Table 6.1 is a result of the rounding of the capital spending amounts in Table 6.1.



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**130.0 Reference: FINANCIAL ANALYSIS**  
**Confidential Exhibit B-3, Tab 1 SAP, Appendix E, Schedule 4**  
**Confidential Exhibit B-4, Appendix X Detailed Costs and Financial Model**  
**Appendix X Detailed Costs and Financial Model**

130.1 Please identify the specific lines in Spreadsheet 2 for the SAP Initial License fee.

**Response:**

The SAP CIS solution is comprised of a few specific modules. The Company interprets "initial License fee" to mean the initial purchase cost of these modules. These costs for the new SAP CIS can be found on the CCE Project Costs tab of confidential spreadsheet 2 (Detailed Project Costs), on rows 122 to 127. PST applicable to these costs is calculated separately and included as part of row 132.



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**131.0 Reference: FINANCIAL ANALYSIS**  
**Confidential Exhibit B-4, Appendix X Detailed Costs and Financial Model**  
**Appendix X Detailed Costs and Financial Model**

131.1 Please explain the significance of the "storm period overtime" on line 91 of Spreadsheet 3.

**Response:**

As is the case with every significant project, for the first six months immediately following conversion to the new system and operating model Terasen Gas is expecting that there will be a period of stabilization in operations where business processes will need to be refined. Because of the skills required to perform the work in the call centre and back office, the Company is planning to authorize overtime opportunities for existing employees to handle any additional "temporary" work that might be required. This has been categorized as "storm period overtime" on line 91 of Spreadsheet 3.



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**132.0 Reference: FINANCIAL ANALYSIS**  
**Confidential Exhibit B-3, Tab 1 SAP, Appendix E, Schedule 4**  
**Confidential Exhibit B-4, Appendix X Detailed Costs and Financial Model**  
**Appendix X Detailed Costs and Financial Model**

132.1 Please explain how to reconcile the SAP annual maintenance fee to line 147 of Spreadsheet 3.

**Response:**

This response is provided to the Commission confidentially under separate cover. Disclosing information such as what is requested in this question, which could be used to derive the amount of SAP's and the other software vendor's quotations, is considered commercially sensitive by software vendors.



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**133.0 Reference: FINANCIAL ANALYSIS**  
**Confidential Exhibit B-4, Appendix U Aspect Software, p. 170**  
**Insourcing Alternative – Terasen**

- 133.1 The Aspect Software bid detail references 220 "agents". Please confirm the final pricing reflects the latest call centre FTE projections.

**Response:**

The project implementation cost of \$122 million set out in the Amended Application filed August 28, 2009, includes the latest call centre FTE projection. Specifically, call centre costs assume 208 FTEs, comprised of agents and management. In planning the optimal choice of call centre technology, 220 agents are assumed to be needed. An additional number of agents is needed so that suitable development, testing, and production environments can be established that will be needed to properly establish the call centres and train the new agents.

- 133.2 Please explain how to reconcile the Aspect Software costs to lines 258-9 of Spreadsheet 2.

**Response:**

This response is provided to the Commission confidentially under separate cover. In order to not prejudice dealings and negotiations with other parties TGI needs to maintain confidentiality of the information provided in this response and limit its disclosure.

- 133.3 Please provide the location in Spreadsheet 2 of the costs to install and test the Aspect Software.

**Response:**

The costs to install and test the Aspect Software are included in consulting services in Lines 258 and 259 of Spreadsheet 2.



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**134.0 Reference: FINANCIAL ANALYSIS**  
**Exhibit B-4, Chapter 6 Project Cost, Sec. 6.2 Summary of Project**  
**Implementation Costs, p. 111**  
**Capital Costs and O&M Costs**

"The primary purpose of the planned Evidentiary Update that has now been incorporated within this Amended Application is to provide final P9029 Project implementation costs."

- 134.1 For the \$ 112.02 million of capital costs and the \$10.08 million of deferred O&M costs, please provide the following:
- The base estimate
  - The P50 expected value estimate
  - The P90 expected value estimate
  - Histogram and cumulative curves, and tornado graphs

**Response:**

The Company is unclear what is specifically meant by "base estimate", but is of the view that the June 2, 2009 Application is representative of "P50" costing, and the August 28, 2009 Amended Application is representative of "P90" costs.

Given all current information, there has been an assessment of Project implementation costs as well as a risk assessment as set out in section 2.5 on pages 29-31 of the Amended Application. However, the risk assessment conducted thus far will not allow for the production of the type of successive complete Project cost estimates and risk graphs identified in item (d) of the question. The Company did not approach the assessment of Project risk on such a basis. The Company is nevertheless confident that it understands the implementation risks it faces and has reasonably identified the costs that need to be incurred, including appropriate contingencies, in order to successfully implement the Project.

In terms of managing Project cost risks, approximately 30% of costs are based on a fixed price that is valid for the duration of the Project. Approximately 50% are based on benchmark costing that face a degree of variability but that the Company believes is reasonable for a Project of this type. A significant portion of these costs however will be fixed shortly once such items as the transition costs for CWLP are negotiated and the lease of the Lower Mainland call centre building is settled. The remaining 20% is comprised of variable costs, the majority of which are expenses and labour costs. Although labour costs will inflate at a rate that is relatively predictable, the actual labour costs that will be incurred are subject, for example, to the detailed work effort that will only be known for certainty after the blue printing phase identifies specific actual work tasks.



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In the case of each of these three categories of costs, appropriate contingencies have been included. These contingencies are required to address the need for scope changes that could be identified and may be advisable to incorporate into the Project when the implementation work is underway. They are also needed to address the need for any difference in benchmark costs when final contracts for that work are agreed to and to cover any difference in the actual internal labour time needed to complete the final work.

The current level of estimates provided an appropriate level of cost certainty for the purposes of obtaining Project approval.





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**135.0 Reference: FINANCIAL ANALYSIS**  
**Exhibit B-4, Chapter 6 Project Cost, Sec. 6.2 Summary of Project**  
**Implementation Costs, p. 110**  
**Capital Costs and O&M Costs**

135.1 Is the project implementation cost estimate of \$122.1 million in nominal dollars?

**Response:**

The estimated Project implementation costs of \$122.1 million are provided in nominal dollars. These costs have been inflated in a manner similar to that described in the Amended Application in Section 6.5.2, on page 116, for the development of future estimated O&M costs.

135.1.1 Provide escalation (including inflation) amounts included in the estimate.

**Response:**

For the purposes of preparing the estimated Project implementation and future O&M costs, all internal labour, except for employees expected to fall under the terms of the Collective Agreement negotiated with COPE for the staffing of the call centres and back office billing, were inflated by 3% annually. Employees expected to fall under the terms of the Collective Agreement negotiated with COPE for the staffing of the call centres and back office billing were inflated per the terms of that agreement. All materials were inflated by 2% annually except where fixed prices are known to apply or where costs are known to decrease.

135.1.2 Provide a description of the method of estimating used, the percentage of completion at the time of the estimate, and identification and justification of all assumptions, exclusions, inflation and discount factors, and sources of benchmarks and other data.

**Response:**

Terasen Gas prepared the Project cost estimate as follows:



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### Labour – Internal

- For employees not considered part of the new collective agreement for the call centre and billing operation, the Company used the 2011 labour rates as per the Company's RRA submission and added an inflation factor of 3% as described on page 116 of the Amended Application.
- For employees considered part of the new collective agreement for the call centre and billing operation labour costs are based on the terms of that agreement.
- Effort was based on the assumption of duration of the Project.
- Number of resources was based partly on the assumptions of customer effort provided in the RFQ response by HCL Axon supplemented by TGI experience of efforts around testing and documentation.

### Consulting

- Where specific scopes of work were provided, TGI used those costs.
- Where TGI identified roles for which it intended to use third party consulting, typically independents, and where those specific individual's billable rates are known, TGI used those. In cases where roles were identified but not specific individuals at the time of the budget creation, TGI used what it believes is an appropriate rate based on the skill required. TGI determined this rate based on its experience in the local marketplace. At the time of the estimate, the Company had agreements in principle for approximately 61% of the identified costs. No inflation factors were applied for the above. Part of the rationale for the contingency in this category would be to allow for the minor adjustment of the estimated rates for the roles that are anticipated to be filled by independent consultants should it be necessary for the remaining 39% of the costs.

### Software

- Where specific proposals were available TGI used those. The Company has allowed for a change in the price of the SAP software should a decision not be made prior to the end of 2009. This amount has been accounted for in contingency associated with software. Please refer to the response to BCUC IR 1.106.6 for further details on SAP software. All other software proposals are valid until the end of February, 2010. Approval received after that date would require additional negotiation with the vendors.



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- Based on TGI's experience with other projects, a small amount was estimated for software that would be used during the course of the project.

### Hardware

- Based on the architecture of the applications that were presented by the vendor, TGI estimated the hardware requirements (including the hardware that would be required to support a Disaster Recovery Site) for the Project and ongoing support. TGI estimated these hardware requirements based on supporting the following environments: Production, QA, Development, Training, Project support and testing for the CIS solution. The Company estimates that disaster recovery plan (DRP) would only be required for Production and possibly QA environments. TGI does not believe the others would be required if TGI was in a mode of operation that required it to activate the DRP environment.

### Expenses

- Where consultants provided estimates for expenses (expenses are not part of any fixed price agreements – please refer to the response to BCUC IR 1.126.3.1 for further discussion on expenses), these estimates were used.
- TGI also relied on experience from other projects on what types of expenses are typically incurred by projects of this nature (training, project admin, supplies, travel, etc) and used what it felt were prudent estimates for this Project.

### Contingency

- While TGI has endeavoured to be as thorough as possible on all of the components of the project, there will be adjustments to each line item as the Project progresses. Some specific line items will go up while others will come down. TGI reviewed the components of the categories listed above and applied a reasonable and prudent contingency factor against each. Terasen Gas believes that contingency should be treated as a risk mitigation factor either to address uncertainties due to a lack of detailed information at the time of the budget creation or as a safeguard against unforeseen events. It is Terasen Gas' intent to manage its contingency judiciously and ensure it is only utilized where absolutely necessary and appropriately justified and approved by the Executive Steering Committee. For further details on specific contingencies, please refer to the responses to BCUC IRs 126.1 thru 126.10.



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## Call Centre Facilities

- The determination of the budget for the proposed buildings was based on the work completed with our building consultants. Terasen Gas reviewed the options to build separate buildings on existing campuses for the contact centre. We completed schematic plans and pricing for this work. The pricing was divided in two categories "Warm Shell (the cost for the building without fixturing)" and "Tenant Improvements (all the interior fixturing & finishing)". This allowed us to carry the Tenant Improvement cost either to a purchase of an existing building or a lease of a building. This methodology was used for efficiency of time and control of costs. A schematic plan has not been completed for the final proposed sites but will be completed upon approval of the application and the budget adjusted accordingly.

135.2 Please provide the project implementation cost estimate in nominal as well as real dollars and the expected accuracy range.

## Response:

The following table sets out a calculation to convert the nominal costs of the Project as filed in the Amended Application to its equivalent in real dollars.

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>Total</u>
1					
2					
3 Nominal Project Costs (\$000s)	1,840	30,370	79,690	10,200	122,100
4					
5 Annual Inflation		1.9%	2.0%	2.0%	
6 Adjustment Factor - 2009 Dollars	100.0	98.1	96.2	94.3	
7					
8 Real Project Costs (\$000s)	1,840	29,804	76,671	9,621	117,936
9					

Although a significant portion of total Project costs are based on fixed price bids and on a new separate collective agreement for call centre and billing operations labour costs, all costs have been deflated using the same inflation rate. Given the fixed nature of a significant portion of these costs, the actual difference between nominal and real dollars is expected to be narrower than that suggested in this analysis.



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The degree to which Project costs are fixed for this Project is important because these costs should not vary significantly when actual costs are incurred. For the non-fixed portion of the costs, however, actual costs may be different than those estimated because inflation may be different than what was assumed at the time this analysis was completed.

Based on current information, we believe that the budget estimates including the contingency amounts are reflective of the expected range of accuracy for the Project costs. Please refer to the response to BCUC IR 1.134.1 for further discussion on the estimated project costs.

- 135.3 Is the project implementation cost estimate of \$122.1 million have a Class 3 degree of accuracy as defined in the AACE International Recommended Practice No. 10S-90, Cost Engineering Terminology (May 20, 2009)?

**Response:**

Terasen Gas does not use AACE International Recommended Practices and methodologies in the development of project cost estimates.

As stated in the Amended Application (page 111, Section 6.2.1), Terasen Gas is confident that it can successfully complete the implementation of the Project within the Project implementation cost estimate of \$122.1 million. The Company considers the implementation cost estimate to be prudent and representative of the effort that TGI believes will be required to successfully complete the Project with the scope as defined in the timeframe proposed. Please refer to the response to BCUC IR 1.135.1.2 for TGI's budget estimating approach.

- 135.4 Provide and identify any cost items not included in the estimate to fully integrate the CIS software and other applications into the Company's systems, including expense and travel costs, and the reason for the exclusion.

**Response:**

Terasen Gas believes it has accounted for all cost items that should be included in the estimate to implement the SAP CIS system with the documented functionality required for go live.



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135.5 Provide any funds spent in prior years attributable to the project.

**Response:**

Terasen Gas has spent \$1,625,718 to date on the Project. The Company is projecting to spend an additional \$100,000 to \$150,000 prior to the start of the Project work. These amounts are included in the estimated total Project implementation cost of \$122 million, and would be captured in the proposed deferral accounts.



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## MISCELLANEOUS

### 136.0 Reference: MISCELLANEOUS

#### **Alternative Programs and Products**

#### **Exhibit B-1, Chapter 3 Project Justification, Sec 3.2 The Customers Evolving Business Environment, p. 27**

"Terasen Gas will much more quickly and cost effectively be able to implement new energy conservation programs, communicate information and opportunities to customers, and measure and bill for alternate energy sources."

- 136.1 Given that the proposed CIS platform will measure and bill for alternate energy sources, please provide the amount of the \$155 million Project Implementation cost related the measurement and billing alternate energy sources.

#### **Response:**

As a point of clarification, the Project cost as per the Amended Application is \$122 million. There are no Project costs budgeted specifically for the measurement and billing of alternative energy sources.

The capability exists in the base SAP CIS system to enable such functionality but has not been specifically determined to be an immediate requirement for project go-live. Once the detailed requirements for this capability have been documented, the treatment of any additional cost if required will be determined at that time. Based on Terasen Gas' understanding on how that functionality could be enabled, the Company anticipates it could be done with in-house staff as part of the ongoing maintenance activities at little to no additional cost. This would have to be validated with the appropriate level of detailed design. Please refer to the responses to BCUC IR 1.20.1.1 and BCUC IR 1.28.2 for additional details.



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**137.0 Reference: MISCELLANEOUS**  
**Alternative Programs and Products**  
**Exhibit B-4, Chapter 1 Application, Sec. 1.1.2 Drivers for Change, p. 4**  
**Exhibit B-4, Appendix K**

"Policy-driven factors, such as the Carbon Tax, greatly expanded energy efficiency and conservation initiatives as well as a broader range of energy options available require a more skilled, knowledgeable, and flexible customer care staff attuned to the local energy marketplace and responsive to such changes, which is not possible with the current outsourcing arrangement."

137.1 Please provide the annual training costs included in the Client Services Agreement by year for 2002-2011.

**Response:**

The structure of the Client Services Agreement does not provide the level of detail required for Terasen Gas to provide information on the annual training costs. These costs are included in the bundled annual cost per customer. Terasen Gas does not have access to detailed costing related to the provision of the services.

137.2 Please provide the forecast customer care training costs by year for 2012-2031.

**Response:**

The customer care training costs for the period of the financial analysis is included within the financial model provided with the Amended Application.

The CCE Project will deliver a comprehensive training program through this initiative, which will form the basis for ongoing training in the future. This will include the training necessary to achieve the objectives of this initiative, including a skilled workforce attuned to the local energy marketplace and responsive to change in the future. This training program will also provide the basis for operational training in the future, the period of 2012 to 2031. Post go live training updates and refreshers will be delivered periodically as required to address current issues and changes. Included in the base staffing estimate is a provision for sustainment training for all agents and is expected to be one to two weeks per year depending on the degree of business change. As such the ongoing training costs are included in the call centre staffing costs for the





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period of the financial analysis. Ongoing training development and delivery will be through existing staff already included in the staffing forecast developed as part of this initiative.

- 137.2.1 Are the incremental training costs associated with developing skilled, knowledgeable, and flexible customer care staff attuned to the local energy marketplace included in Exhibit B-4, Appendix K, Schedule S2? If yes, please identify where these are included. If not, please explain why the Company has not included these costs in its analysis.

**Response:**

Yes. The ongoing training costs for developing skilled, knowledgeable and flexible customer care staff attuned to the local energy marketplace are included in Exhibit B-4 Appendix K, Schedule S2. Also please refer to the response to BCUC IR 1.137.2.

- 137.2.2 Please provide the incremental training costs associated with developing a more skilled, knowledgeable, and flexible customer care staff attuned to the local energy marketplace.

**Response:**

Refer to the previous response to BCUC IR 1.137.2.



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**138.0 Reference: MISCELLANEOUS**

**Alternative Programs and Products**

**Exhibit B-1, Chapter 3 Project Justification, Sec. 3.1.3.1 Customer Information System, p. 38**

**Exhibit B-4, Chapter 1 Application, Sec. 1.1.4 Project Cost and Rate Impact, p. 7**

"Terasen Gas is also intending to provide integrated alternative energy solutions including biogas, solar, thermal, geo-exchange and district energy systems. Through implementing the new CIS with the broad capabilities that are included in its basic functionality, and creating an internal customer care delivery organization, this Project will position Terasen Gas to best respond and adapt in a timely and cost-effective manner as additional initiatives are undertaken."

138.1 Does the Company currently provide integrated alternative energy solutions including biogas, solar, thermal, geoexchange and district energy systems?

**Response:**

No, the Terasen Utilities do not currently provide integrated alternative energy solutions. TGI and TGVI intend to pursue alternative energy solutions including biogas, solar, thermal, geoexchange and district energy systems in the immediate future. The UCA does not prohibit the two utilities from pursuing such matters, for the reasons explained in detail in the ongoing TGI and TGVI Revenue Requirement Applications. However, both TGI and TGVI have applied to the BCUC, through their respective RRAs, for a variety of approvals that will streamline the regulatory processes associated with advancing such projects and offerings in 2010 and 2011. TGI believes that it is appropriate for the customer care model and CIS to be able to adapt to changing customer needs, including the growing expectation among customers (in this case, primarily large institutions and municipalities) that the Terasen Utilities be able to provide a variety of energy solutions.

138.2 Has the Company received Commission approval to provide integrated alternative energy solutions including biogas, solar, thermal, geoexchange and district energy systems?

**Response:**

Please refer to the response to BCUC IR 1.138.1.



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- 138.3 Please discuss how the Company will allocate the \$122 million alternative energy customers.

**Response:**

The Company will require the new CIS system whether or not it serves biogas, solar thermal, geo-exchange and district energy (collectively "alternative energy" or "AES") customers. If there are no new AES customers, the Company will still require the new CIS system. However, if there are new AES customers, the CIS system may be able to provide service to that customer.

To account for the costs to serve the new AES customers, the Company has proposed, as part of the RRA of both TGI and TGVI, that as part of each AES cost of service ("COS"), an incremental 5% will be added to the capital cost of the AES project to account for the incremental overhead associated with service to that customer (this includes items such as sales and market development costs). In addition the ongoing O&M for the AES customer such as billing, metering and CIS activities would be part of the AES COS. The Company also expects that where requirements for new functionality to serve alternative energy customers result in an incremental cost, that cost will be recovered only from those customers and not from existing customers.

This process will ensure that new AES customers pay not only for the direct costs to serve them, but also contribute (through the inclusion of 5% overhead allocation) to the reduction in overall costs to serve existing customers all things being equal. Furthermore, rates (i.e. the contract with a customer) will require approval of the Commission, thus providing customers with the necessary comfort that costs are being allocated appropriately.

- 138.4 Does the Company provide customer care services (meter reading, billing) to NRBs? If yes, please explain how customer care services are allocated to the NRBs.

**Response:**

The Company currently provides a billing service that is used by Terasen Energy Services for the monthly billing of a number of resorts. The cost to provide this service follows the requirements set out in the Transfer Pricing Policy.



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- 138.5 If the Company is not permitted to provide alternative energy solutions, discuss how the Company will allocate customer care costs for alternative energy solutions to NRBs.

**Response:**

The UCA does not prohibit TGI from providing alternative energy solutions, and it is in the interests of TGI customers for the Company to provide those solutions. As described in the concurrent RRA, these alternative energy customers will cover their own costs of service and make a contribution to fixed costs that will benefit gas customers. There is an accompanying GHG reduction, which benefits all customers. The Commission has previously indicated a preference not to have a proliferation of small utilities when a service is capable of being offered within TGI.

Any company that provides geothermal, solar thermal and district energy solutions will be subject to regulation as a public utility. It will not be an NRB, as contemplated in the questions. However, in response to the question about allocation of costs to other related entities, the cost of providing billing services to TES, for instance, currently follows the requirements set out in the Transfer Pricing Policy. Please also see the responses to BCUC IR 1.138.1 to 1.138.4.



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**139.0 Reference: MISCELLANEOUS**  
**Demand Side Management ("DSM")**  
**Exhibit B-4, Chapter 1 Application, Sec1.2.1 Name, Address and Nature of Business, p. 9**  
**Terasen Gas 2008 Annual Review, Section B-3, DSM, p. 13**

Discount Rate 6.08%

Program Name	Number of Participants	Savings per Participant per Year (GJ)	Measure Life (Years)	NPV Energy Savings over Measure Life (GJ)	GHG Savings over Measure Life (tonnes)	Free Rider Rate (%)	RIM Result	Participant Result	TRC Result	TRC Net Benefit
Energy Star Heating System Upgrade	1,326	13.8	18	112,935	5,725	57	0.46	5.2	1.44	\$393,000
Energy Star Heating System Upgrade No	1,663	13.8	18	141,638	7,180	57	0.41	5.2	1.08	\$120,000
Fireplace Pilot Program	161	7.75	15	9,210	467	24	0.43	6.1	0.84	-\$20,000
Efficient Boiler Program	4	5,492*	25	57,569	2,918	18	0.73	4	2.1	\$341,000
Destination Conservation	75	113	3	22,654	1,148	0	0.68	-	0.68	\$108,000
Commercial Energy Utilization Advisory	73	20,479**	15	179,009	9,074	10	0.91	2.6	2.09	\$1,058,000
Program Portfolio Result				523,015	26,512	-	0.52	4.2	1.27	\$2,001,000

\* note that the savings for the Efficient Boiler Program are not presented per participant per year, but are instead an aggregate of savings for all participants for the year

\*\* note that the energy savings for the Commercial Energy Utilization Advisory are estimated using a 35% implementation rate as per the 2008 Evaluation Study results

(Terasen Gas 2008 Annual Review, Section B-3, DSM, p. 13)

139.1 Please discuss the customer care process (customer contact, meter reading, billing, payment processing, contract management, collection and CIS system support and maintenance) associated with the Company's DSM programs.

**Response:**

Support for DSM programs was not included as part of the defined scope of services in the Client Services Agreement with CustomerWorks LP. In cases where support was required from the outsourcer, separate contractual arrangements were negotiated. The specific services that have been required include CIS configuration and testing for any financial transactions required to be applied to a customer's bill, inbound call handling support to answer general inquiries related to the program, and transaction processing program credits. Please see the response to BCUC IR 1.139.2.



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- 139.2 Please provide the annual customer care cost for each DSM program, by activity and resource.

**Response:**

The only DSM program that has been supported through the outsourcing arrangement is the Energy Star Heating Upgrade Program. Using 2008 as a representative year, the customer care costs to support this program were \$4,773 for system configuration, \$32,331 for inbound call handling, and \$19,643 for application handling and bill credit processing. All other DSM programs have been handled in-house with customer contact handled internally by Terasen DSM and Technical Sales and Support and Account Management staff, all of whom are very knowledgeable of the program offerings, payment processing handled by Terasen Accounts Payable staff, and participation tracking handled by Terasen DSM and Technical Sales Support staff using spreadsheets. Costs of these activities are not tracked by individual program, activity and resource.

TGI believes it is more cost effective to do this work in-house, while operating under the current outsourcing arrangement. The existing platform is not capable of effectively accommodating this work, therefore, it would need to be done manually by the outsource provider if it was to do the work. Additionally, due to the technical nature of the program offerings, as well as the relatively limited amount of inbound calls associated with these programs, as compared to the total number of inbound calls, TGI believes it can provide these services more cost effectively and at a higher quality than the outsource provider. The new functionality in the base SAP CIS will provide robust support for program development and tracking in the future related to these types of programs. As well, the Company will be able to support the customer facing activities through an in-house workforce having greater program and regional knowledge than can be provided through outsourcing.



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**140.0 Reference: MISCELLANEOUS**  
**Amalgamation**  
**Exhibit B-1, Appendix E, p. 1-5**

**"10.7 Bidder's Quotation Regarding Corporate Amalgamation**

Terasen is contemplating the amalgamation of its three corporate entities - Terasen Gas Inc., Terasen Gas (Vancouver Island) Inc., and Terasen Gas (Whistler) Inc. The potential implementation date for corporate amalgamation is expected to coincide with the CIS go live target date of January 1, 2012. Bidders must include the possible Project impacts the proposed amalgamation will have on their Quotation."

- 140.1 Please discuss the addition risks and costs associated with the potential implementation date for corporate amalgamation coinciding with the CIS go live target date of January 1, 2012.

**Response:**

The potential risk associated with the potential implementation date for corporate amalgamation coinciding with the CIS target go live date is the additional effort required to test the whole SAP application environment. When amalgamation occurs, the entire SAP platform would need to be tested as part of that effort. If this was to occur alongside the CIS implementation, this would increase the overall workload during the testing phase of the Project and would increase the complexity of the testing effort. These risks can be mitigated based on the approach Terasen Gas decides to follow to do the amalgamation. The Terasen Gas support team has the requisite skills and experience to manage this risk. They have performed an amalgamation on a smaller scale in the case of Squamish Gas and are familiar with the various approaches that could be taken. The details on how this would ultimately be done will be determined as part of the amalgamation business case when that is decided.

As for the costs, the treatment of the costs relating to the corporate amalgamation will be determined as part of the amalgamation business case. No costs associated with this potential event have been incorporated into the Project cost.



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- 140.2 Please confirm that none of the additional costs associated with the potential implementation date for corporate amalgamation coinciding with the CIS go live target date of January 1, 2012 are included in the project implementation costs of \$122 million. If no, please explain.

**Response:**

TGI confirms that none of the costs associated with the potential amalgamation coinciding with the CIS go live target date have been included in the Project implementation costs of \$122 million. At the time of the issuing of the RFQ, the amalgamation was discussed as a possibility. The purpose of including it in the bidder's quote was to get an initial CIS Project impact that could be used in the further development of a possible amalgamation project business case.





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**141.0 Reference: MISCELLANEOUS**  
**Exhibit B-4, Chapter 4, Analysis of Alternatives, Sec. 4.5.2.3 Service**  
**Quality, p 100 Improvement Strategy**  
**Service Quality Improvement**

"Looking forward Terasen is proposing a change to the service metrics, the measurement methodology, and the process to validate that the metrics are reflective of customer value over time. "

141.1 If the Company is unable to meet service quality benchmarks, should the Company be subject to financial penalties similar to CWLP? If not, why not.

**Response:**

This response addresses BCUC IRs 1.141.1 through 1.141.5, other than 1.141.1.1.

As it relates to the insourcing of customer care services, the Company should not be subject to financial penalties similar to CWLP if it is unable to meet service quality benchmarks. The financial penalties that CWLP are accountable for with respect to service quality are an outcome of the commercial agreement between an outsource provider (CWLP) and a client (Terasen Gas). In the model proposed in the Application, no such commercial agreement exists as Terasen Gas will provide the service directly.

The Company does however believe that service metrics are critical to understanding and quantifying customer service quality.

As has been past practice, the Company will continue to consult with and survey customers. We will also take into account best practices in other jurisdictions and industries, as outlined in the Amended Application.

During 2012, the Company plans to work to achieve the current service metrics as defined in the Client Services Agreement. Beginning in 2013, new metrics will have been confirmed and reporting processes established to ensure that the defined metrics can be measured as required. Any costs incurred to change these metrics, including for example an increase in staffing in order to achieve a higher level of service in a specific area, would be addressed in future revenue requirements proceedings. A review methodology will be used to establish each of the metrics discussed. For example, for events that are real time, such as average speed to answer and response time for e-mail inquiries, the results will be measured daily. For other events that are intermittent like billing, for example, these types of metrics will be measured monthly.

To address the question related to customer value, the Company is proposing to measure customer value through the established metrics, because these metrics should reflect what



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customers value most. In order to ensure that this measurement process remains valid, the metrics included in this process must be reviewed and adjusted periodically to reflect changing customer expectations.

141.1.1 Should the Company be at risk for the cost (additional labour, training) of remediating service levels that falls below service quality benchmarks?

**Response:**

As a general matter, to the extent that the revenue requirements are adequate to provide service, and to the extent that service has deteriorated because of factors within the reasonable control of the Company, it would not be unreasonable to expect the Company to bear the cost of remediating service levels. However, the project being proposed by the Company will provide enhanced service levels to meet evolving customer needs rather than remediating service levels as posed in the question. On that basis, all costs prudently incurred in the process / operations of delivering such service to customers, such as training, continuous process improvement, etc. should be recoverable from ratepayers.

"Looking forward Terasen is proposing a change to the service metrics, the measurement methodology, and the process to validate that the metrics are reflective of customer value over time. The metrics also need to have a broader reach than has been considered in the past to address a wider range of business processes impacting the customer experience, i.e. timely issuance of refund cheques for credit balances."

141.2 Will the Company consult with customers and the Commission regarding changes to the service metrics?

**Response:**

Please refer to the response to BCUC IR 1 141.1.



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141.2.1 Will The Company inform customers and the Commission of the increased/decreased costs due to changes in service metrics?

**Response:**

Please refer to the response to BCUC IR 1.141.1.

141.3 Will The Company report service metrics to customers and the Commission? If yes how often?

**Response:**

Please refer to the response to BCUC IR 1 141.1.

141.4 Please provide the expected cost of changing the service metrics, the measurement methodology, and the process to validate that the metrics are reflective of customer value over time and have these costs been included Schedule S2 in Appendix X?

**Response:**

Please refer to the response to BCUC IR 1.141.1.

141.5 How does the Company propose to measure "customer value over time"?

**Response:**

Please refer to the response to BCUC IR 1 141.1.



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**142.0 Reference: MISCELLANEOUS**  
**Exhibit B-4, Chapter 4, Analysis of Alternatives, Sec. 4.5.2.3 Service**  
**Quality, p 103 Improvement Strategy**  
**Service Quality Improvement**

"Once the Project is in place and has stabilized, Terasen Gas intends to propose service levels that are representative of our internal support standards for similar critical business applications."

142.1 When does the Company expect the Project to be in place and stabilized?

**Response:**

Assuming a go live date for the Project of January 1, 2012, the Company expects that the technical implementation will be stabilized within three months and the new operating model will be stable by the end of 2012. During 2012, the first year of operations, Terasen Gas expects business process stabilization to occur over the first six months followed by a six month period to monitor and adjust business process and reporting as necessary in preparation for establishing new service metrics.



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**143.0 Reference: MISCELLANEOUS**

**Exhibit B-4, Chapter 6 Project Costs, Sec 6.7 Project Impact on the Benefits Expected from the Banner CIS Conversion, p. 119**

**Exhibit B-4-2, Appendix X (Confidential Filing), Tab Banner Conversion**

**Banner CIS Conversion**

"The following table [Table 6.3] sets out the original Customer Care Conversion Project benefits as filed by TGI in its June 2005 CPCN Application. It shows that the peak cumulative deficit will reach \$335,000 in 2013 before turning positive in 2014. In Order C-15-05 the Commission approved the Customer Care Conversion Project subject to TGI accepting any deficit from the project should there be a subsequent conversion to a new CIS before realizing the benefits. TGI requested in its project Application the right to set aside its offer to backstop the risk of a deficit if it can demonstrate that a subsequent conversion preserves or exceeds the benefits anticipated in 2005 Application. The Commission, in its subsequent approval order C-15-05, accepted this request." (Exhibit B-4, Chapter 6 Project Costs, Sec 6.7 Project Impact on the Benefits Expected from the Banner CIS Conversion, p. 119)

143.1 It appears that in the Company's calculation in Appendix X, Tab Banner Conversion, the financial benefits of the Banner conversion have not been met by the end of 2011. Please explain.

**Response:**

Please refer to the response to BCUC IR 1.143.2.

143.2 Please recalculate the foregone benefits on the proposed early conversion as required by Order C-15-05. If not using the balances from Appendix X, Tab Banner Conversion, please explain.

**Response:**

The levelized cost per customer associated with the CCE project provides levelized benefits in excess of the existing client services agreement. On that basis, the Company determined that



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the proposed early conversion was in the best interests of customers and that foregone benefits do not exist.

Although the tab Banner Conversion was inadequately updated as it appeared in Appendix X, it was not used in the analysis of the CCE project or the evaluation of the foregone benefits. For clarification, this tab was not intended to be included with Appendix X.

Please see Attachment 143.2 for the updated Banner to Energy Conversion benefit calculation, reflecting updated costs, tax rates, debt rates, equity rates and average customers. As the updated schedule demonstrates, the levelized savings per customer are in excess of the benefits calculated in the June 2005 CPCN.

- 143.3 Please recalculate Table 6.3 updating for actual financial results in 2006, 2007 and 2008. If not using the balances from Appendix X, Tab Banner Conversion, please explain.

**Response:**

Please refer to the response to BCUC IR 1.143.2.

- 143.4 Please confirm that any foregone benefit should be charged to the shareholder and if not please demonstrate that the proposed subsequent conversion to an SAP system preserves or exceeds the financial benefits anticipated in the 2005 Application.

**Response:**

The question focuses on financial benefits associated with the Banner Conversion, whereas the key benefits enabled by the conversion was that a common customer care platform and service delivery model provided TGI customers with the same scope and level of services enjoyed by TGI's customers. From a financial perspective, comparing actual Banner Conversion savings with the original project indicates that although the levelized savings are somewhat lower than forecast from 2006 to 2011, they are higher for the 2012 to 2015 when the conversion is fully depreciated and retired.



Terasen Gas Inc. ("TGI", "Terasen Gas" or the "Company") Application for a Certificate of Public Convenience and Necessity ("CPCN") for the Customer Care Enhancement Program (the "Project")	Submission Date: October 2, 2009
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The Company is of the view that the implementation of the Customer Care Enhancement Project preserves the benefits realized from the Banner CIS Conversion for the reasons set out in the Amended Application in Section 6.7, on pages 119-120. As a result, no foregone benefit will be created by the implementation of the Customer Care Enhancement Project. The shareholder should therefore not bear any charge.

143.5 Is any confidential information included in Exhibit B-4-2, Appendix X, Tab Banner Conversion?

**Response:**

No, there was no confidential information included in Banner Conversion tab found in confidential spreadsheet 1 (Financial Model) of Appendix X.

Please also refer to the response to BCUC IR 1.143.2.

143.5.1 If yes, please identify the confidential information.

**Response:**

Please refer to the response to question BCUC IR 1.143.5.

143.5.2 If not, please file a non confidential version with the Commission.

**Response:**

Please see the response to BCUC IR 1.143.2 and Attachment 143.2 filed with that response.

**Attachment 13.1**

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COLUMN A - Is this capability currently being provided to ratepayers, and if so at what level?									COLUMN B - Currently, what are the efficiency issues with the capability?	COLUMN C - What additional benefits will this capability provide to ratepayers and why is it necessary?	COLUMN D - If activated, is this capability available on the current version of the PEACE software? (YES/NO)	COLUMN E - Is this capability available on later versions of the PEACE software? (YES/NO)	COLUMN F - Is an upgraded CIS software, such as SAP, required in order to obtain the capability as required?	COLUMN G - Is a fully insourced Billing and Back Office alternative required in order to provide this capability to ratepayers or is this capability solely dependant on the software solution?	COLUMN H - Is a fully insourced Call Centre alternative required in order to provide this capability to ratepayers or is this capability solely dependant on the software solution?
Billing and Payment Options															
Electronic bill presentment and payment processing	Low	Stability / participation tracking	Lower cost / customer preference / environmental	Terasen believes the function is partially supported	Partial Support	Yes - integrated	Function is supported by insourcing.	No does not require insourcing							
	Low	Manual processes / specialist required	Less manual handling / lower cost / flexibility for large volume customers	Terasen believes the function is partially supported	Partial Support	YES	Yes insourcing is required.	Function is supported by insourcing.							
Data file billing	NO	Not supported	Paperless lower cost / can be integrated with customer systems	No, Terasen does not believe the function is supported.	NO	YES	Function is supported by insourcing.	No does not require insourcing							
Direct Electronic payments	NO	Interface not supported	Low cost option / Integrated B2B / customer requested feature	No, Terasen does not believe the function is supported.	NO	Yes - integrated	Function is supported by insourcing.	No does not require insourcing							
Improved billing of non-gas charges	Low	Limited Application support	Improved bill clarity / reduced inbound calls	No, Terasen does not believe the function is supported.	NO	YES	Yes insourcing is required.	Function is supported by insourcing.							
Increased flexibility for bill messages and inserts	Med	Inflexible statement file structure / workaround	More targeted messaging / reduced inbound calls	No, Terasen does not believe the function is supported.	NO	YES	Function is supported by insourcing.	No does not require insourcing							
Special Interests															
Improved data capture of customer premise information	Low	Limited Application Support	More knowledgeable staff to respond to inquiries / higher first call resolution	No, Terasen does not believe the function is supported.	NO	YES	NO	Yes insourcing is required.							
	Low	Limited Application Support	Customer assess to managed properties / high customer risk alerts / lower cost account transfers	Terasen believes the function is partially supported	Partial Support	YES	Yes insourcing is required.	Yes insourcing is required.							
(Landlords, property managers, third party billing)	Low	Limited Application Support		Terasen believes the function is partially supported	Partial Support	YES	Yes insourcing is required.	Yes insourcing is required.							
Rate comparisons - best rate analysis	NO	Limited Application Support		No, Terasen does not believe the function is supported.	NO	YES	Yes insourcing is required.	Yes insourcing is required.							

Rate and tax configuration flexibility		Med	Limited Application Support	Clearer bill descriptions/ reduced inbound calls	Terasen believes the function is partially supported	Partial Support	YES	Yes insourcing is required.	No does not require insourcing
Support for mass rate refunds		NO	No application Support	Cost effective retroactive rate change capability	No, Terasen does not believe the function is supported.	NO	YES	Function is supported by insourcing.	No does not require insourcing
Customer Self Serve									
Alternate channels, email, and online chat		Low	No integration with systems	Support for customer preferred channels	No, Terasen does not believe the function is supported.	NO	YES - Integrated	Function is supported by insourcing.	Yes insourcing is required.
Online transactional support:	Online moves	NO	No application support	24X7 Access / low cost self serve	No, Terasen does not believe the function is supported.	NO	YES - Integrated	Function is supported by insourcing.	No does not require insourcing
	Payment plan applications	NO	No application support	24X7 Access / low cost self serve	No, Terasen does not believe the function is supported.	NO	YES - Integrated	Function is supported by insourcing.	No does not require insourcing
	Payment arrangements	NO	No application support	24X7 Access / low cost self serve	No, Terasen does not believe the function is supported.	NO	YES - Integrated	Function is supported by insourcing.	No does not require insourcing
	High bill resolution tools	NO	No application support	24X7 Access / low cost self serve	No, Terasen does not believe the function is supported.	NO	YES - Integrated	Function is supported by insourcing.	No does not require insourcing
Improved Access to consumption and billing history		Low	Custom Development reqd	24X7 Access / low cost self serve	No, Terasen does not believe the function is supported.	NO	YES - Integrated	Function is supported by insourcing.	No does not require insourcing
Self serve analytics		NO	Data and application limitations	24X7 Access / low cost self serve	No, Terasen does not believe the function is supported.	NO	YES - Integrated	No does not require insourcing	No does not require insourcing
Enhanced IVR		Low	Change Order required / subject to captive pricing		No, Terasen does not believe the function is supported.	NO	YES - Integrated	No does not require insourcing	No does not require insourcing

Notes:

The responses are based on Terasen's belief and is limited by our direct access to business process and the lack of a comprehensive response from Peace to our detailed requirements list.

COLUMN A	Yes / No / High / Med / Low
COLUMN B	Lower cost / service quality
COLUMN C	Example customer Benefits
COLUMN D	Current support to the best of Terasen's knowledge based on Version 8.04.
COLUMN E	Future support to the best of Terasen's knowledge based on Peace's response to Terasen's detailed business requirements.
COLUMN F	Yes / No / Yes through integration / Contributes to the quality and effiveness of the benefit.
COLUMN G	Yes insourcing is required / No does not require insourcing / Function is better supported by insourcing
COLUMN H	Yes insourcing is required / No does not require insourcing / Function is better supported by insourcing

**Attachment 32.2**

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***Terasen Gas, Inc.***

**Customer Information System (CIS) Strategy Project**

**- Executive Management Report -**

**(August 13, 2008)**

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**CONFIDENTIAL & PROPRIETARY**

**Key Findings & Conclusions**



**CIS Business  
Requirements  
Identification**

CIS Business Requirements  
Summary

- Utilizing Micon's CIS Industry Business Requirements template, TGI:
  - Conducted work sessions to identify existing and new requirements
  - Prioritized the requirements to understand the Gap between Peace and new CIS Solutions

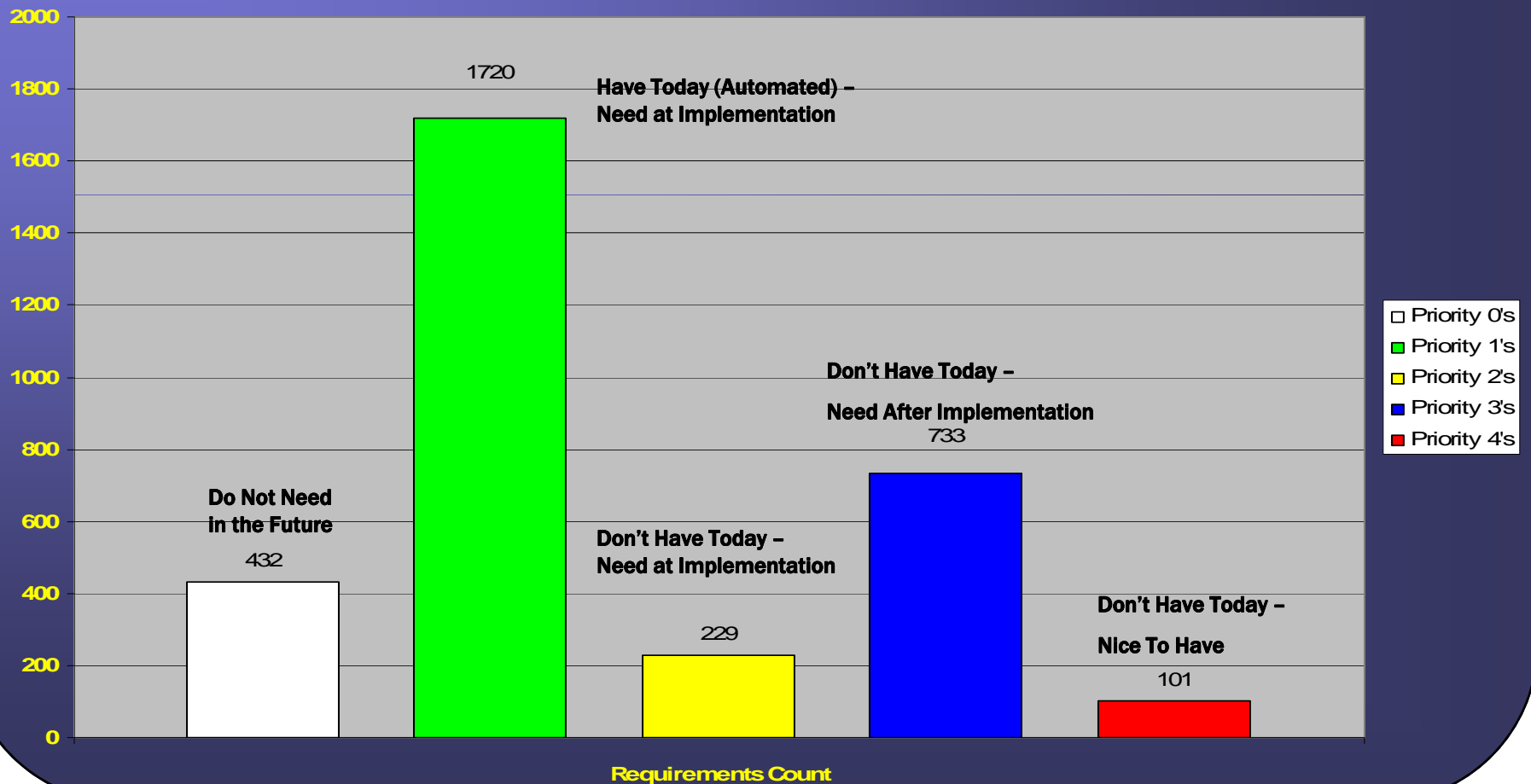
## Key Findings &amp; Conclusions

CIS Business Requirements  
Summary

- **Business Requirements priorities are defined as follows:**
  - **0** – Do Not Need in the Future
  - **1** – Have Today (Automated) – Need at Implementation
  - **2** – Don't Have Today – Need at Implementation
  - **3** – Don't Have Today – Need After Implementation
  - **4** – Don't Have Today – Nice To Have

CIS Business Requirements  
Summary

Total Requirement Counts by Priority





**Key Findings & Conclusions**

**Strategies/Alternatives**

## Key Findings & Conclusions

### Strategies/Alternatives Summary

	Hosting Provider			Software Provider			Implementation Provider			Rollout	
	Existing	New	TGI	Existing	Oracle	SAP	Existing	New 1st Tier	New 2nd Tier	Big Bang	Phased
<b>A - Existing CIS Solution</b>											
<b>A - 1</b> Peace Status Quo	X			X			X				
<b>A - 2</b> Peace Enhancement Project	X			X			X				
<b>B - New CIS Solution</b>											
<b>B - 9</b> New Host, Oracle CIS, 1st Tier Implementation Provider, Big Bang Rollout		X			X			X		X	
<b>B - 13</b> New Host, SAP CIS, 1st Tier Implementation Provider, Big Bang Rollout		X				X		X		X	
<b>B - 17</b> TGI Host, Oracle CIS, 1st Tier Implementation Provider, Big Bang Rollout			X		X			X		X	
<b>B - 21</b> TGI Host, SAP CIS, 1st Tier Implementation Provider, Big Bang Rollout			X			X		X		X	

The above graphic depicts the final set of CIS Strategies (and related Alternatives) evaluated by the Project Team

## Strategies/Alternatives Summary

### Elimination Reasoning regarding Strategies/Alternatives

- The initial list of Strategy B Alternatives was reduced through elimination of “variables” as follows:
  - “Risk” variable was eliminated
    - Reduced the Strategy B Alternatives list from 432 alternatives to 144
  - “Spend Limitation” variable was eliminated
    - Reduced the Alternatives list from 144 alternatives to 72
  - “Resource Mix” variable was eliminated because TGI has a limited number of internal resources that could be assigned to the project on a full-time basis. TGI deemed it would not be feasible to provide a significant percentage of the project resources. TGI resource mix was driven by the maximum number of resources available to the project
    - Reduced the Alternatives list from 72 alternatives to 36

Note: many of the eliminated variables was based on the approach they would be “Decision criteria” in the scoring process of the final strategies/alternatives

Strategies/Alternatives  
Cost SummaryElimination Reasoning regarding  
Strategies/Alternatives

- The initial list of Strategy B Alternatives was reduced through elimination of “variables” as follows:
  - “Existing SI Provider” variable was eliminated. It was determined that the existing services provider would be treated like a new provider as it relates to the new environment and would not result in a cost variation. The remaining SI Provider alternatives were a Tier 1 or Tier 2 SI.
    - Reduced the Alternatives list from 36 alternatives to 24
  - “Existing Host” would be treated like a “new host” as it relates to the new environment
  - “Phased Rollout” were eliminated due to risk
  - “Tier 2 System Integrator” were eliminated. Tier 1 pricing provided as most conservative.
    - Reduced the Alternatives list from 24 alternatives to 4

Note: many of the eliminated variables was based on the approach they would be “Decision criteria” in the scoring process of the final strategies/alternatives evaluation

## Key Findings & Conclusions

## Strategy / Alternative B 21 - Optimum CIS Strategy & Timeline

Alternative	Month	2008					2009					2010					2011					2012																					
		M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O
Strategy B - New CIS Solution																																											
Alternatives B-9, B-13, B-17, B-21	Host Environment, New 3rd Generation Product, System Integrator Provider, Big Bang Rollout	Biz. Case Dev.	Product & SI Eval/ Select	Cont. Negot.	Regulatory Approval	Design/ Config	Build (UEDev/ Int./ Conv./ Test/ Chg. Mgmt)					System Test					Post Impl. Support																										
	Hosting		Host Eval, Select											Host Prep					Host Transition																								
	Business Process Outsourcing (BPO)		BPO Contract Realign																																								

**- The above timeline represents the estimated approach and key activities -**

**Key Findings & Conclusions**

**Strategies/Alternatives  
Cost Summary**

### Key Estimating Assumptions

- Version-based software CIS license fees are estimated at \$10 m and 22% annual maintenance fee
- Adequate physical floor space will be available to house the project team and will not be charged to the project. The cost of furniture for the team will not be charged to the project, however, the cost to set up the project team space including furniture set-up, workstation cost (hardware and software) and telephone cost.
- Contingency is estimated at 15%
- Current estimates do not include costs for AFUDC and BCST tax costs

Strategies/Alternatives  
Cost Summary

Key Estimating Assumptions (continued)

- Based on the increased integration requirements of an Oracle solution within the TGI environment, Micon has assumed an additional 10% of workdays (of total project days) within the same timeframe if an Oracle product is selected. This factor is applied to the listed resources during the first 15 months of the project (design/configuration/build)
- **System Integrator (SI)-related Assumptions:**
  - **1st - Tier SI** – a large international company that has extensive experience in the implementation of COTSS Oracle and/or SAP software (such as IBM with Oracle and Accenture/Deloitte/Sapient/Cap Gemini with SAP) and requires 60% of the work to accept a fixed-fee implementation contract. The TGI cost estimates will assume a hourly rate of \$200
  - **2nd - Tier SI** – a North American-based company that specializes in the IOU Utility CIS marketplace (for example – Axon with SAP & Blue Heron with Oracle) and typically submits a RFP response (fixed-fee) that is less regarding the hourly rate and workdays than a 1st Tier SI. The TGI cost estimates will assume a hourly rate of \$165 and 15% less in workdays (SI work days only) but within the same time frame. This factor is applied to the listed resources during the first 15 months of the project (design/configuration/build)



## Strategies/Alternatives

### Cost Summary

Strategy/Alternative	A-1	B-17	B-21
	Peace Status Quo	TGI Host, Oracle CIS, Big Bang Rollout	TGI Host, SAP CIS, Big Bang Rollout
<b>EXTERNAL COSTS</b>			
Hardware	\$ -	\$ -	\$ -
Software	\$ -	\$ 10,500,000	\$ 10,500,000
SI/Vendor Fees/Expenses	\$ -	\$ 40,182,000	\$ 37,575,600
Contractor Fees/Expenses	\$ -	\$ 7,792,000	\$ 7,176,000
Other Out-of-Pocket Costs	\$ -	\$ 1,387,718	\$ 1,371,522
<b>TOTAL EXTERNAL COSTS</b>	\$ -	\$ 59,861,718	\$ 56,623,122
<b>INTERNAL COSTS</b>			
Internal Labor	\$ -	\$ 9,430,819	\$ 9,430,819
Training Costs - Capital	\$ -	\$ 156,368	\$ 156,368
Training Costs - O&M	\$ -	\$ 561,600	\$ 561,600
<b>TOTAL INTERNAL COSTS</b>	\$ -	\$ 10,148,787	\$ 10,148,787
<b>TOTAL COSTS</b>	\$ -	\$ 70,010,506	\$ 66,771,909
<b>CONTINGENCY</b>	\$ -	\$ 10,501,576	\$ 10,015,786
<b>TOTAL DEVELOPMENT COSTS</b>	\$ -	\$ 80,512,082	\$ 76,787,695
<b>PRODUCT/SI EVAL CONTR NEG</b>		\$ 1,516,313	\$ 1,516,313
<b>HOSTING PREP/TRANSITION</b>		\$ 722,811	\$ 722,811
<b>TOTAL PROJECT COSTS</b>	\$ -	\$ 82,751,205	\$ 79,026,819

**Attachment 80.1**

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	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Lease Cost of Service Analysis (\$ Million)</b>																				
<u>Operating Lease</u>																				
Operating & Maintenance Expense- Lease Payment	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70
Depreciation Expense	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Income Tax Expense	(0.10)	(0.16)	(0.19)	(0.22)	(0.25)	(0.29)	(0.33)	(0.37)	(0.41)	(0.46)	(0.22)	(0.33)	(0.36)	(0.39)	(0.42)	(0.46)	(0.49)	(0.53)	(0.58)	(0.62)
Earned Return	1.04	0.95	0.87	0.77	0.67	0.57	0.45	0.34	0.21	0.07	1.04	0.95	0.87	0.77	0.67	0.57	0.45	0.34	0.21	0.07
Total Operating Lease Cost of Service	<u>\$ 3.14</u>	<u>\$ 2.99</u>	<u>\$ 2.87</u>	<u>\$ 2.75</u>	<u>\$ 2.62</u>	<u>\$ 2.48</u>	<u>\$ 2.33</u>	<u>\$ 2.17</u>	<u>\$ 2.00</u>	<u>\$ 1.82</u>	<u>\$ 3.02</u>	<u>\$ 2.83</u>	<u>\$ 2.71</u>	<u>\$ 2.58</u>	<u>\$ 2.45</u>	<u>\$ 2.31</u>	<u>\$ 2.16</u>	<u>\$ 2.00</u>	<u>\$ 1.83</u>	<u>\$ 1.65</u>
<u>Capital Lease</u>																				
Depreciation Expense	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
Income Tax Expense	0.44	0.33	0.29	0.24	0.20	0.15	0.10	0.05	(0.00)	(0.06)	0.28	0.16	0.12	0.08	0.03	(0.01)	(0.06)	(0.12)	(0.17)	(0.23)
Earned Return	1.35	1.22	1.09	0.96	0.82	0.68	0.54	0.39	0.24	0.08	1.35	1.22	1.09	0.96	0.82	0.68	0.54	0.39	0.24	0.08
Total Capital Lease Cost of Service	<u>\$ 3.45</u>	<u>\$ 3.21</u>	<u>\$ 3.04</u>	<u>\$ 2.87</u>	<u>\$ 2.69</u>	<u>\$ 2.50</u>	<u>\$ 2.31</u>	<u>\$ 2.11</u>	<u>\$ 1.90</u>	<u>\$ 1.69</u>	<u>\$ 3.30</u>	<u>\$ 3.05</u>	<u>\$ 2.88</u>	<u>\$ 2.70</u>	<u>\$ 2.52</u>	<u>\$ 2.33</u>	<u>\$ 2.14</u>	<u>\$ 1.94</u>	<u>\$ 1.74</u>	<u>\$ 1.52</u>
<u>Present Value Comparison</u>																				
PV 20Yrs																				
Operating Lease Cost of Service	\$24.57																			
Capital Lease Cost of Service	\$25.45																			
Variance	<u>\$ (0.88)</u>																			
Annual Difference	\$ 0.32	\$ 0.22	\$ 0.17	\$ 0.12	\$ 0.07	\$ 0.02	\$ (0.02)	\$ (0.06)	\$ (0.10)	\$ (0.13)	\$ 0.28	\$ 0.22	\$ 0.17	\$ 0.12	\$ 0.07	\$ 0.02	\$ (0.02)	\$ (0.06)	\$ (0.10)	\$ (0.13)

**Attachment 109.1**

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## **1. GENERAL**

- 1.1. Terasen Gas Inc. ("Terasen") is currently assessing its customer care and meter-to-cash solution and accordingly requires a consultant (the "Consultant") to model and evaluate a change in service delivery scheduled to take place by the end of 2011.

## **2. SPECIFIC SERVICES**

### **2.1. Customer Care Model and Practices**

- Other Utilities (gas, gas and electric)
- Other Industries

The overall objective of this research is to develop an understanding of what other firms, both inside and possibly outside of the utility industry, have adopted in regards to their Customer Care model and practices. Terasen has some thoughts as to the model it would like to pursue and would like the Consultant's assistance in developing a comparison and understanding of Customer Care models being utilized across industries, their key features/attributes, the reasons/rationale behind the models/practices and what works and what does not work. The research will be summarized in a report with findings and conclusion(s) as it potentially will be included in the Terasen's CPCN application.

Specifically, the objectives of the research are:

- (a) Develop an outline and comparison of customer care models being utilized in industry, with the focus on the utility industry. Key features / attributes along with reasons/rationale behind the models/practices are required. Discussion of what has worked and what needs improvement is also required.
- (b) Determine if Terasen Gas' proposed Customer Care model is being used elsewhere in the industry. If so, where and some detailed background information on the situation and circumstances.
- (c) Understand the reasons and drivers behind the decision of some firms (those firms that contract out) are electing to bring back in-house some of the functions they previously outsourced.

- (d) Find out what changes utilities currently in outsourcing arrangements are looking for in their revised agreements.

The Consultant's shall approach to this work will follow research approach outlined below.

- I. Create Project and Research Plan
- II. Collect Data
- III. Conduct Interviews (industry and non-industry)
- IV. Conduct survey (as appropriate)
- V. Aggregate data from the Consultant's in-house databases and library of information
- VI. Write Draft of Report
- VII. Share Draft of Report
- VIII. Prepare Presentation and Provide Follow up support as required

**Deliverables:** A written report of appropriate length and detail (estimated at 25- 30 pages). In addition to the report the Consultant will provide relevant exhibits, tables, and graphics. A second deliverable will be an executive level presentation derived from the report highlighting the findings from the research and analysis (estimated 25 presentation slides).

**Attachment 118.1**

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**Customer Care Enhancement Project- Revised October 2, 2009, Impact of ROE and Accounting Changes & IFRS****Revenue Requirement & Rate Impact Analysis in \$000s**

\* Note- the revenue requirement and tax expense amount showing in 2011 are for financial model purposes only; as requested in the CPCN Application from June 2, 2009, all costs prior to January 1, 2012 will be captured in an AFUDC earning non-rate base deferral account.

	Reference	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>TGI</b>											
1 <b>Revenue Requirement</b>											
2											
3 Operating & Maintenance Expense											
4 CCE Customer Care O&M Costs	S2, line 6	-	-	-	-	-	-	-	-	-	-
5 Avoided Costs- Existing customer care contract		-	-	-	-	-	-	-	-	-	-
6 Less: Overhead Capitalized		-	-	(1,301)	(1,353)	(1,335)	(1,244)	(1,226)	(1,238)	(1,249)	(1,260)
7		-	-	(1,301)	(1,353)	(1,335)	(1,244)	(1,226)	(1,238)	(1,249)	(1,260)
8											
9 Property & Other Taxes		-	-	-	2	21	17	71	66	24	(52)
10 Amortization & Depreciation Expense	line 19 + line 20	-	3,113	7,668	4,830	5,729	5,805	3,021	(2,541)	(5,078)	(4,392)
11 Income Tax Expense	line 29	-	(3,344)	(6,161)	(2,926)	1,884	1,820	737	(1,179)	(1,961)	(1,748)
12 Earned Return		-	461	1,863	1,106	807	218	(238)	(310)	(15)	412
13											
14 <b>TGI Total Cost of Service</b>	x-ref S6, line 33	-	231	2,070	1,659	7,107	6,616	2,365	(5,201)	(8,280)	(7,040)
15											
16											
17 <b>Customer Impact- Residential</b>											
18 (95 GJ annual use)											
19 Approximate Annual Bill- Burner Tip Increase/(Decrease) %				0.16%	0.13%	0.56%	0.53%	0.19%	-0.41%	-0.66%	-0.55%



**Customer Care Enhancement Project- Revised October 2, 2009, Impact of ROE and Accounting Changes & IFRS****Revenue Requirement & Rate Impact Analysis in \$000s**

\* Note- the revenue requirement and tax expense amount showing in 2011 are for financial model purposes only; as requested in the CPCN Application from June 2, 2009, all costs prior to January 1, 2012 will be captured in an AFUDC earning non-rate base deferral account.

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>TGVI</b>											
20	<b>Revenue Requirement</b>										
21											
22	Operating & Maintenance Expense										
23	CCE Customer Care O&M Costs										
24	Avoided Costs- Existing customer care contract										
25	Less: Overhead Capitalized										
26		-	-	(157)	(166)	(167)	(158)	(159)	(163)	(167)	(172)
27											
28	Property & Other Taxes	-	-	-	5	16	7	2	2	(3)	(12)
29	Amortization & Depreciation Expense	-	369	854	367	376	385	57	(601)	(899)	(809)
30	Income Tax Expense	-	132	771	590	77	76	(46)	(266)	(350)	(308)
31	Earned Return	-	19	89	(84)	(117)	(151)	(169)	(143)	(74)	7
32											
33	<b>TGVI Total Cost of Service</b>	-	519	1,556	712	185	159	(316)	(1,172)	(1,493)	(1,293)
34											
35											
36	<b>Customer Impact- Residential</b>										
37	(59 GJ annual use)										
38	Approximate Annual Bill- Burner Tip Increase/(Decrease) %			0.60%	0.28%	0.07%	0.07%	-0.12%	-0.46%	-0.57%	-0.51%

**Customer Care Enhancement Project- Revised October 2, 2009, Impact of ROE and Accounting Changes & IFRS****Revenue Requirement & Rate Impact Analysis in \$000s**

\* Note- the revenue requirement and tax expense amount showing in 2011 are for financial model purposes only; as requested in the CPCN Application from June 2, 2009, all costs prior to January 1, 2012 will be captured in an AFUDC earning non-rate base deferral account.

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>TGW</b>											
39	<b>Revenue Requirement</b>										
40											
41	Operating & Maintenance Expense										
42	CCE Customer Care O&M Costs										
43	Avoided Costs- Existing customer care contract										
44	Less: Overhead Capitalized										
45											
46											
47	Property Taxes										
48	Amortization & Depreciation Expense										
49	Income Tax Expense										
50	Earned Return										
51											
52	<b>TGW Total Cost of Service</b>										
53											
54											
55	<b>Customer Impact- Residential</b>										
56	(90 GJ annual use)										
57	Approximate Annual Bill- Burner Tip Increase/(Decrease) %										

**Attachment 121.3.1**

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**Rate Base Calculation of Capital Lease**  
(000's)

Monthly Lease Payment \$ 141.9  
Term of Lease (months) 120  
Annual Interest Rate 8%  
Present Value of Monthly Lease Payments \$ 11,694

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Gas Plant in Service</b>																				
Capital Lease - Building																				
Opening	\$ -	\$ 11,694	\$ 11,694	\$ 11,694	\$ 11,694	\$ 11,694	\$ 11,694	\$ 11,694	\$ 11,694	\$ 11,694	\$ -	\$ 11,694	\$ 11,694	\$ 11,694	\$ 11,694	\$ 11,694	\$ 11,694	\$ 11,694	\$ 11,694	\$ 11,694
Beginning of Year Addition	11,694	-	-	-	-	-	-	-	-	-	11,694	-	-	-	-	-	-	-	-	-
Retirements	-	-	-	-	-	-	-	-	-	(11,694)	-	-	-	-	-	-	-	-	-	(11,694)
Closing Balance	11,694	11,694	11,694	11,694	11,694	11,694	11,694	11,694	11,694	-	11,694	11,694	11,694	11,694	11,694	11,694	11,694	11,694	11,694	-
Leasehold Improvements																				
Opening Balance	-	4,974	4,974	4,974	4,974	4,974	4,974	4,974	4,974	4,974	-	4,974	4,974	4,974	4,974	4,974	4,974	4,974	4,974	4,974
Beginning of Year Addition	4,974	-	-	-	-	-	-	-	-	-	4,974	-	-	-	-	-	-	-	-	-
Retirement	-	-	-	-	-	-	-	-	-	(4,974)	-	-	-	-	-	-	-	-	-	(4,974)
Closing Balance	4,974	4,974	4,974	4,974	4,974	4,974	4,974	4,974	4,974	-	4,974	4,974	4,974	4,974	4,974	4,974	4,974	4,974	4,974	-
<b>Accumulated Depreciation</b>																				
Capital Lease - Building																				
Opening	-	(1,169)	(2,339)	(3,508)	(4,677)	(5,847)	(7,016)	(8,185)	(9,355)	(10,524)	-	(1,169)	(2,339)	(3,508)	(4,677)	(5,847)	(7,016)	(8,185)	(9,355)	(10,524)
Depreciation Provision	(1,169)	(1,169)	(1,169)	(1,169)	(1,169)	(1,169)	(1,169)	(1,169)	(1,169)	(1,169)	(1,169)	(1,169)	(1,169)	(1,169)	(1,169)	(1,169)	(1,169)	(1,169)	(1,169)	(1,169)
Retirements	-	-	-	-	-	-	-	-	-	11,694	-	-	-	-	-	-	-	-	-	11,694
Closing Balance	(1,169)	(2,339)	(3,508)	(4,677)	(5,847)	(7,016)	(8,185)	(9,355)	(10,524)	-	(1,169)	(2,339)	(3,508)	(4,677)	(5,847)	(7,016)	(8,185)	(9,355)	(10,524)	-
Leasehold Improvements																				
Opening	-	(497)	(995)	(1,492)	(1,989)	(2,487)	(2,984)	(3,482)	(3,979)	(4,476)	-	(497)	(995)	(1,492)	(1,989)	(2,487)	(2,984)	(3,482)	(3,979)	(4,476)
Depreciation Provision	(497)	(497)	(497)	(497)	(497)	(497)	(497)	(497)	(497)	(497)	(497)	(497)	(497)	(497)	(497)	(497)	(497)	(497)	(497)	(497)
Retirements	-	-	-	-	-	-	-	-	-	4,974	-	-	-	-	-	-	-	-	-	4,974
Closing Balance	(497)	(995)	(1,492)	(1,989)	(2,487)	(2,984)	(3,482)	(3,979)	(4,476)	-	(497)	(995)	(1,492)	(1,989)	(2,487)	(2,984)	(3,482)	(3,979)	(4,476)	-
Gas Plant In Service Opening	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667
Gas Plant In Service Closing	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	-	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	-
Accumulated Depreciation Opening	-	(1,667)	(3,333)	(5,000)	(6,667)	(8,334)	(10,000)	(11,667)	(13,334)	(15,000)	-	(1,667)	(3,333)	(5,000)	(6,667)	(8,334)	(10,000)	(11,667)	(13,334)	(15,000)
Accumulated Depreciation Closing	(1,667)	(3,333)	(5,000)	(6,667)	(8,334)	(10,000)	(11,667)	(13,334)	(15,000)	-	(1,667)	(3,333)	(5,000)	(6,667)	(8,334)	(10,000)	(11,667)	(13,334)	(15,000)	-
Mid Year Rate Base- Capital Lease	15,834	14,167	12,500	10,834	9,167	7,500	5,834	4,167	2,500	833	15,834	14,167	12,500	10,834	9,167	7,500	5,834	4,167	2,500	833
Allocation %																				
TGI	89.1%	89.0%	88.8%	88.6%	88.5%	88.3%	88.1%	88.0%	87.8%	87.6%	87.4%	87.2%	87.0%	86.8%	86.6%	86.4%	86.2%	86.0%	85.8%	85.6%
TGVI	10.6%	10.8%	10.9%	11.1%	11.2%	11.4%	11.6%	11.8%	12.0%	12.1%	12.3%	12.5%	12.7%	12.9%	13.1%	13.3%	13.5%	13.7%	13.9%	14.1%
TGW	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
TGI Mid Year Rate Base- Capital Lease	14,114	12,605	11,102	9,603	8,111	6,623	5,141	3,665	2,194	730	13,838	12,355	10,877	9,406	7,941	6,482	5,030	3,584	2,145	713
TGVI Mid Year Rate Base- Capital Lease	1,678	1,524	1,365	1,201	1,031	857	677	491	299	101	1,952	1,773	1,588	1,398	1,200	997	787	571	348	118
TGW Mid Year Rate Base- Capital Lease	42	38	33	29	25	20	16	11	7	2	44	39	35	30	26	21	16	12	7	2

**Attachment 124.1**

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**Customer Care Enhancement CPCN****Total Cost of Service**

October 2, 2009 Revised Financial Schedules

	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>CIS Software</b>									
CCE Customer Care O&M Costs	906	906	906	906	906	906	906	906	906
Overhead Capitalized	52	53	50	45	43	42	42	41	41
Amortization	-	-	-	-	-	-	-	-	-
Depreciation	-	732	641	635	629	624	618	613	608
Income Tax Expense	(79)	195	262	253	244	236	228	219	211
Property Tax	-	-	(2)	10	9	9	9	8	7
Earned Return	168	394	311	259	207	155	104	54	4
<i>Total Cost of Service</i>	<u>1,046</u>	<u>2,281</u>	<u>2,170</u>	<u>2,108</u>	<u>2,039</u>	<u>1,973</u>	<u>1,907</u>	<u>1,842</u>	<u>1,777</u>
<b>CIS Implementation &amp; Maintenance</b>									
CCE Customer Care O&M Costs	1,758	2,147	2,179	2,212	2,247	2,284	2,342	2,401	2,463
Overhead Capitalized	101	125	121	110	107	107	109	109	110
Amortization	-	-	-	-	-	-	-	-	-
Depreciation	859	6,797	6,092	6,076	6,063	6,049	6,002	5,988	5,166
Income Tax Expense	(675)	1,772	2,370	2,319	2,264	2,166	2,067	2,021	1,711
Property Tax	-	(2)	15	115	107	103	98	92	86
Earned Return	1,826	3,585	2,870	2,393	1,918	1,479	1,042	588	165
<i>Total Cost of Service</i>	<u>3,869</u>	<u>14,424</u>	<u>13,646</u>	<u>13,226</u>	<u>12,706</u>	<u>12,188</u>	<u>11,660</u>	<u>11,201</u>	<u>9,701</u>
<b>Call Centre</b>									
<b>Lower Mainland</b>									
CCE Customer Care O&M Costs	10,005	9,870	10,292	10,733	11,193	11,462	11,738	12,020	12,308
Overhead Capitalized	774	776	771	728	722	727	734	735	740
Amortization	360	360	360	360	360	360	360	360	-
Depreciation	2,731	2,631	2,520	2,424	2,333	2,213	2,122	2,030	1,217
Income Tax Expense	857	958	887	790	652	515	436	(44)	(135)
Property Tax	-	32	17	15	10	8	3	(2)	(6)
Earned Return	1,842	1,569	1,279	1,004	774	552	302	140	27
<i>Total Cost of Service</i>	<u>16,570</u>	<u>16,196</u>	<u>16,127</u>	<u>16,054</u>	<u>16,044</u>	<u>15,838</u>	<u>15,695</u>	<u>15,239</u>	<u>14,151</u>
<b>Interior</b>									
CCE Customer Care O&M Costs	5,160	5,086	5,291	5,505	5,728	5,857	5,988	6,122	6,259
Overhead Capitalized	296	296	294	274	272	274	278	278	281
Amortization	324	324	324	324	324	324	324	324	-
Depreciation	1,067	1,041	990	954	919	825	791	756	41
Income Tax Expense	312	462	469	457	423	376	373	170	12
Property Tax	-	3	14	14	12	12	10	8	6
Earned Return	1,236	1,123	993	872	772	677	569	504	480
<i>Total Cost of Service</i>	<u>8,394</u>	<u>8,335</u>	<u>8,375</u>	<u>8,399</u>	<u>8,451</u>	<u>8,344</u>	<u>8,332</u>	<u>8,162</u>	<u>7,079</u>
<b>Billing Operations</b>									
CCE Customer Care O&M Costs	26,705	27,826	28,700	29,598	30,526	31,341	31,956	33,180	33,974
Overhead Capitalized	1,703	1,792	1,765	1,639	1,611	1,630	1,644	1,668	1,684
Amortization	281	281	281	281	281	281	281	281	-
Depreciation	1,008	925	673	453	248	(31)	(234)	(440)	(1,427)
Income Tax Expense	521	641	580	481	400	301	227	156	(264)
Property Tax	-	4	(64)	(70)	(75)	(74)	(77)	(83)	(88)
Earned Return	702	513	285	89	(84)	(239)	(376)	(499)	(567)
<i>Total Cost of Service</i>	<u>30,919</u>	<u>31,982</u>	<u>32,219</u>	<u>32,470</u>	<u>32,905</u>	<u>33,209</u>	<u>33,420</u>	<u>34,262</u>	<u>33,311</u>
<b>Average Cost per Customer</b>	<b>63.35</b>	<b>75.61</b>	<b>74.24</b>	<b>73.21</b>	<b>72.41</b>	<b>71.15</b>	<b>69.95</b>	<b>68.99</b>	<b>63.81</b>

**Customer Care Enhancement CPCN**
**Total Cost of Service**

October 2, 2009 Revised Financial Schedules- Accounting Changes/IFRS

	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>CIS Software</b>									
CCE Customer Care O&M Costs	906	906	906	906	906	906	906	906	906
Overhead Capitalized	26	26	25	23	22	21	21	21	20
Amortization	-	-	-	-	-	-	-	-	-
Depreciation	656	1,310	1,305	1,300	1,296	635	(23)	(22)	(21)
Income Tax Expense	(771)	(522)	475	461	446	216	(6)	(6)	(5)
Property Tax	-	-	(2)	9	18	17	16	6	(3)
Earned Return	168	402	300	198	97	21	(4)	(4)	(4)
<i>Total Cost of Service</i>	<u>986</u>	<u>2,123</u>	<u>3,009</u>	<u>2,897</u>	<u>2,784</u>	<u>1,817</u>	<u>910</u>	<u>902</u>	<u>894</u>
<b>CIS Implementation &amp; Maintenance</b>									
CCE Customer Care O&M Costs	1,758	2,147	2,179	2,212	2,247	2,284	2,342	2,401	2,463
Overhead Capitalized	50	63	61	55	53	54	54	55	55
Amortization	2,247	2,247	2,247	2,247	2,247	2,247	2,247	2,247	2,247
Depreciation	3,836	6,132	6,119	6,108	5,330	2,340	124	170	216
Income Tax Expense	(2,220)	(318)	3,070	3,015	2,689	1,560	756	742	765
Property Tax	-	(0)	58	106	134	128	111	65	32
Earned Return	2,498	3,217	2,569	1,923	1,307	871	634	463	289
<i>Total Cost of Service</i>	<u>8,170</u>	<u>13,487</u>	<u>16,304</u>	<u>15,666</u>	<u>14,008</u>	<u>9,483</u>	<u>6,269</u>	<u>6,144</u>	<u>6,068</u>
<b>Call Centre</b>									
<b>Lower Mainland</b>									
CCE Customer Care O&M Costs	10,005	9,870	10,292	10,733	11,193	11,462	11,738	12,020	12,308
Overhead Capitalized	387	388	385	364	361	364	367	367	370
Amortization	360	360	360	360	360	360	360	360	-
Depreciation	3,622	3,652	3,574	3,499	2,517	1,466	1,363	1,607	1,848
Income Tax Expense	(441)	1,048	1,152	1,062	583	131	99	(248)	15
Property Tax	-	32	10	22	19	17	0	(17)	(21)
Earned Return	1,866	1,595	1,260	932	682	509	345	267	184
<i>Total Cost of Service</i>	<u>15,800</u>	<u>16,944</u>	<u>17,034</u>	<u>16,973</u>	<u>15,715</u>	<u>14,310</u>	<u>14,273</u>	<u>14,357</u>	<u>14,706</u>
<b>Interior</b>									
CCE Customer Care O&M Costs	5,160	5,086	5,291	5,505	5,728	5,857	5,988	6,122	6,259
Overhead Capitalized	148	148	147	137	136	137	139	139	140
Amortization	324	324	324	324	324	324	324	324	-
Depreciation	1,995	2,065	2,035	2,007	1,213	335	237	359	480
Income Tax Expense	(658)	619	778	763	450	138	140	1	122
Property Tax	-	4	12	24	24	23	10	(3)	(5)
Earned Return	1,232	1,095	901	710	569	492	435	423	413
<i>Total Cost of Service</i>	<u>8,201</u>	<u>9,340</u>	<u>9,488</u>	<u>9,470</u>	<u>8,444</u>	<u>7,305</u>	<u>7,273</u>	<u>7,365</u>	<u>7,410</u>
<b>Billing Operations</b>									
CCE Customer Care O&M Costs	26,705	27,826	28,700	29,598	30,526	31,341	31,956	33,180	33,974
Overhead Capitalized	851	896	882	820	805	815	822	834	842
Amortization	281	281	281	281	281	281	281	281	-
Depreciation	1,758	1,786	1,608	1,438	532	(492)	(684)	(671)	(669)
Income Tax Expense	(774)	416	684	614	302	(42)	(104)	(97)	(186)
Property Tax	-	3	(78)	(72)	(73)	(70)	(82)	(98)	(101)
Earned Return	749	612	392	188	28	(57)	(96)	(129)	(153)
<i>Total Cost of Service</i>	<u>29,570</u>	<u>31,820</u>	<u>32,469</u>	<u>32,866</u>	<u>32,401</u>	<u>31,775</u>	<u>32,092</u>	<u>33,299</u>	<u>33,707</u>
<b>Average Cost per Customer</b>	<b>65.36</b>	<b>76.12</b>	<b>80.14</b>	<b>78.90</b>	<b>73.62</b>	<b>64.32</b>	<b>59.90</b>	<b>60.56</b>	<b>60.68</b>

**Customer Care Enhancement CPCN**
**Total Cost of Service**

October 2, 2009 Revised Financial Schedules- Accounting Changes/IFRS &amp; ROE and Capital Structure

	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>CIS Software</b>									
CCE Customer Care O&M Costs	906	906	906	906	906	906	906	906	906
Overhead Capitalized	26	26	25	23	22	21	21	21	20
Amortization	-	-	-	-	-	-	-	-	-
Depreciation	669	1,335	1,329	1,325	1,320	647	(23)	(22)	(21)
Income Tax Expense	(756)	(489)	503	481	460	221	(7)	(6)	(6)
Property Tax	-	-	(2)	10	19	18	17	7	(3)
Earned Return	203	484	361	238	116	25	(5)	(5)	(5)
<i>Total Cost of Service</i>	<u>1,047</u>	<u>2,263</u>	<u>3,123</u>	<u>2,984</u>	<u>2,844</u>	<u>1,840</u>	<u>910</u>	<u>901</u>	<u>893</u>
<b>CIS Implementation &amp; Maintenance</b>									
CCE Customer Care O&M Costs	1,758	2,147	2,179	2,212	2,247	2,284	2,342	2,401	2,463
Overhead Capitalized	50	63	61	55	53	54	54	55	55
Amortization	2,272	2,272	2,272	2,272	2,272	2,272	2,272	2,272	2,272
Depreciation	3,878	6,211	6,199	6,187	5,406	2,377	124	170	216
Income Tax Expense	(2,040)	(82)	3,265	3,169	2,804	1,634	803	778	790
Property Tax	-	0	65	115	142	134	116	68	34
Earned Return	2,986	3,841	3,067	2,295	1,558	1,035	752	548	340
<i>Total Cost of Service</i>	<u>8,904</u>	<u>14,452</u>	<u>17,108</u>	<u>16,305</u>	<u>14,483</u>	<u>9,790</u>	<u>6,463</u>	<u>6,293</u>	<u>6,171</u>
<b>Call Centre</b>									
<b>Lower Mainland</b>									
CCE Customer Care O&M Costs	10,005	9,870	10,292	10,733	11,193	11,462	11,738	12,020	12,308
Overhead Capitalized	387	388	385	364	361	364	367	367	370
Amortization	364	364	364	364	364	364	364	364	-
Depreciation	3,624	3,654	3,577	3,502	2,518	1,466	1,364	1,607	1,849
Income Tax Expense	(324)	1,146	1,230	1,120	625	163	121	(231)	26
Property Tax	-	35	14	26	22	19	2	(16)	(20)
Earned Return	2,211	1,886	1,490	1,103	806	602	408	316	218
<i>Total Cost of Service</i>	<u>16,267</u>	<u>17,343</u>	<u>17,353</u>	<u>17,212</u>	<u>15,890</u>	<u>14,441</u>	<u>14,363</u>	<u>14,428</u>	<u>14,752</u>
<b>Interior</b>									
CCE Customer Care O&M Costs	5,160	5,086	5,291	5,505	5,728	5,857	5,988	6,122	6,259
Overhead Capitalized	148	148	147	137	136	137	139	139	140
Amortization	327	327	327	327	327	327	327	327	-
Depreciation	1,997	2,067	2,037	2,009	1,214	335	238	359	480
Income Tax Expense	(581)	687	835	808	486	169	167	28	147
Property Tax	-	6	15	27	26	24	12	(1)	(3)
Earned Return	1,461	1,295	1,066	840	673	582	514	499	488
<i>Total Cost of Service</i>	<u>8,512</u>	<u>9,616</u>	<u>9,718</u>	<u>9,653</u>	<u>8,591</u>	<u>7,431</u>	<u>7,384</u>	<u>7,473</u>	<u>7,511</u>
<b>Billing Operations</b>									
CCE Customer Care O&M Costs	26,705	27,826	28,700	29,598	30,526	31,341	31,956	33,180	33,974
Overhead Capitalized	851	896	882	820	805	815	822	834	842
Amortization	283	283	283	283	283	283	283	283	-
Depreciation	1,759	1,787	1,609	1,439	532	(492)	(684)	(671)	(669)
Income Tax Expense	(727)	454	709	627	304	(45)	(109)	(104)	(195)
Property Tax	-	4	(76)	(71)	(72)	(69)	(82)	(98)	(102)
Earned Return	888	724	464	223	34	(67)	(113)	(152)	(180)
<i>Total Cost of Service</i>	<u>29,760</u>	<u>31,975</u>	<u>32,572</u>	<u>32,919</u>	<u>32,414</u>	<u>31,766</u>	<u>32,073</u>	<u>33,271</u>	<u>33,670</u>
<b>Average Cost per Customer</b>	<b>67.19</b>	<b>78.12</b>	<b>81.74</b>	<b>80.11</b>	<b>74.50</b>	<b>64.90</b>	<b>60.28</b>	<b>60.85</b>	<b>60.89</b>



**Customer Care Enhancement CPCN**
**Total Cost of Service**

October 2, 2009 Revised Financial Schedules- Accounting Changes/IFRS, ROE and Capital Structure &amp; 20% Increase in Ongoing O&amp;M

	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>CIS Software</b>									
CCE Customer Care O&M Costs	1,088	1,088	1,088	1,088	1,088	1,088	1,088	1,088	1,088
Overhead Capitalized	12	12	11	8	7	7	7	6	6
Amortization	-	-	-	-	-	-	-	-	-
Depreciation	670	1,339	1,337	1,335	1,333	662	(8)	(7)	(7)
Income Tax Expense	(756)	(487)	505	485	464	226	(2)	(2)	(2)
Property Tax	-	-	(0)	12	21	20	19	9	(1)
Earned Return	203	485	363	241	120	29	(2)	(2)	(1)
<i>Total Cost of Service</i>	<u>1,216</u>	<u>2,437</u>	<u>3,303</u>	<u>3,168</u>	<u>3,033</u>	<u>2,030</u>	<u>1,100</u>	<u>1,091</u>	<u>1,083</u>
<b>CIS Implementation &amp; Maintenance</b>									
CCE Customer Care O&M Costs	2,110	2,576	2,615	2,655	2,697	2,740	2,810	2,882	2,955
Overhead Capitalized	22	28	26	20	17	17	17	16	16
Amortization	2,272	2,272	2,272	2,272	2,272	2,272	2,272	2,272	2,272
Depreciation	3,881	6,220	6,215	6,210	5,436	2,412	160	207	253
Income Tax Expense	(2,039)	(79)	3,271	3,177	2,814	1,645	814	789	801
Property Tax	-	0	68	119	146	139	120	73	39
Earned Return	2,986	3,845	3,073	2,302	1,566	1,043	760	557	349
<i>Total Cost of Service</i>	<u>9,232</u>	<u>14,863</u>	<u>17,539</u>	<u>16,754</u>	<u>14,948</u>	<u>10,268</u>	<u>6,953</u>	<u>6,795</u>	<u>6,685</u>
<b>Call Centre</b>									
<b>Lower Mainland</b>									
CCE Customer Care O&M Costs	12,006	11,844	12,351	12,880	13,432	13,755	14,085	14,424	14,770
Overhead Capitalized	227	230	221	192	182	180	179	175	173
Amortization	364	364	364	364	364	364	364	364	-
Depreciation	3,640	3,702	3,657	3,615	2,667	1,635	1,538	1,788	2,034
Income Tax Expense	(319)	1,162	1,256	1,156	672	215	172	(179)	78
Property Tax	-	35	33	45	43	41	25	8	5
Earned Return	2,218	1,904	1,517	1,136	844	642	448	358	261
<i>Total Cost of Service</i>	<u>18,136</u>	<u>19,241</u>	<u>19,398</u>	<u>19,389</u>	<u>18,202</u>	<u>16,831</u>	<u>16,812</u>	<u>16,937</u>	<u>17,321</u>
<b>Interior</b>									
CCE Customer Care O&M Costs	6,191	6,103	6,349	6,606	6,874	7,028	7,185	7,346	7,511
Overhead Capitalized	65	67	62	49	44	43	43	41	40
Amortization	327	327	327	327	327	327	327	327	-
Depreciation	2,006	2,092	2,079	2,068	1,291	422	327	451	575
Income Tax Expense	(578)	695	848	827	510	195	194	54	173
Property Tax	-	6	25	37	36	36	23	11	9
Earned Return	1,465	1,305	1,080	858	693	603	535	521	510
<i>Total Cost of Service</i>	<u>9,476</u>	<u>10,594</u>	<u>10,770</u>	<u>10,770</u>	<u>9,775</u>	<u>8,653</u>	<u>8,634</u>	<u>8,751</u>	<u>8,818</u>
<b>Billing Operations</b>									
CCE Customer Care O&M Costs	32,046	33,391	34,441	35,518	36,631	37,609	38,347	39,816	40,769
Overhead Capitalized	424	451	423	346	317	314	310	303	298
Amortization	283	283	283	283	283	283	283	283	-
Depreciation	1,802	1,917	1,829	1,753	942	(26)	(204)	(178)	(161)
Income Tax Expense	(712)	497	780	727	432	97	33	37	(54)
Property Tax	-	4	(26)	(17)	(15)	(9)	(19)	(32)	(35)
Earned Return	905	773	538	315	138	42	(2)	(38)	(63)
<i>Total Cost of Service</i>	<u>34,748</u>	<u>37,317</u>	<u>38,269</u>	<u>38,924</u>	<u>38,729</u>	<u>38,309</u>	<u>38,749</u>	<u>40,191</u>	<u>40,755</u>
<b>Average Cost per Customer</b>	<b>75.86</b>	<b>87.21</b>	<b>91.37</b>	<b>90.17</b>	<b>85.00</b>	<b>75.66</b>	<b>71.17</b>	<b>71.98</b>	<b>72.16</b>

**Customer Care Enhancement CPCN**
**Total Cost of Service**

October 2, 2009 Revised Financial Schedules- Accounting Changes/IFRS, ROE and Capital Structure &amp; 20% Reduction in Ongoing O&amp;M

	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>CIS Software</b>									
CCE Customer Care O&M Costs	725	725	725	725	725	725	725	725	725
Overhead Capitalized	41	41	40	37	36	36	36	35	35
Amortization	-	-	-	-	-	-	-	-	-
Depreciation	667	1,330	1,322	1,314	1,307	633	(37)	(36)	(36)
Income Tax Expense	(757)	(490)	500	478	456	217	(11)	(10)	(10)
Property Tax	-	-	(4)	9	17	16	15	5	(5)
Earned Return	202	482	358	235	113	22	(8)	(8)	(8)
<i>Total Cost of Service</i>	<u>878</u>	<u>2,088</u>	<u>2,942</u>	<u>2,799</u>	<u>2,655</u>	<u>1,649</u>	<u>719</u>	<u>710</u>	<u>702</u>
<b>CIS Implementation &amp; Maintenance</b>									
CCE Customer Care O&M Costs	1,407	1,718	1,743	1,770	1,798	1,827	1,873	1,921	1,970
Overhead Capitalized	79	97	95	91	89	90	92	93	95
Amortization	2,272	2,272	2,272	2,272	2,272	2,272	2,272	2,272	2,272
Depreciation	3,876	6,202	6,183	6,164	5,376	2,343	88	134	179
Income Tax Expense	(2,041)	(85)	3,260	3,162	2,795	1,624	793	768	780
Property Tax	-	0	62	111	137	130	111	64	30
Earned Return	2,985	3,838	3,062	2,288	1,551	1,027	744	540	332
<i>Total Cost of Service</i>	<u>8,576</u>	<u>14,041</u>	<u>16,677</u>	<u>15,857</u>	<u>14,018</u>	<u>9,312</u>	<u>5,973</u>	<u>5,791</u>	<u>5,657</u>
<b>Call Centre</b>									
<b>Lower Mainland</b>									
CCE Customer Care O&M Costs	8,004	7,896	8,234	8,586	8,954	9,170	9,390	9,616	9,847
Overhead Capitalized	547	546	550	536	540	547	555	560	567
Amortization	364	364	364	364	364	364	364	364	-
Depreciation	3,608	3,606	3,497	3,388	2,369	1,297	1,189	1,427	1,663
Income Tax Expense	(330)	1,130	1,204	1,084	579	112	70	(282)	(25)
Property Tax	-	35	(4)	7	2	(2)	(21)	(40)	(44)
Earned Return	2,205	1,868	1,464	1,069	769	563	367	274	175
<i>Total Cost of Service</i>	<u>14,398</u>	<u>15,446</u>	<u>15,307</u>	<u>15,035</u>	<u>13,577</u>	<u>12,050</u>	<u>11,914</u>	<u>11,919</u>	<u>12,183</u>
<b>Interior</b>									
CCE Customer Care O&M Costs	4,128	4,069	4,233	4,404	4,583	4,685	4,790	4,897	5,007
Overhead Capitalized	231	230	232	225	228	231	235	237	240
Amortization	327	327	327	327	327	327	327	327	-
Depreciation	1,989	2,042	1,996	1,951	1,138	248	148	267	385
Income Tax Expense	(584)	679	821	790	462	142	141	2	121
Property Tax	-	6	5	17	15	13	(0)	(14)	(16)
Earned Return	1,458	1,286	1,052	823	654	562	494	478	466
<i>Total Cost of Service</i>	<u>7,549</u>	<u>8,638</u>	<u>8,667</u>	<u>8,536</u>	<u>7,407</u>	<u>6,209</u>	<u>6,134</u>	<u>6,195</u>	<u>6,204</u>
<b>Billing Operations</b>									
CCE Customer Care O&M Costs	21,364	22,261	22,960	23,678	24,421	25,072	25,565	26,544	27,179
Overhead Capitalized	1,279	1,341	1,342	1,293	1,294	1,317	1,333	1,365	1,385
Amortization	283	283	283	283	283	283	283	283	-
Depreciation	1,716	1,657	1,389	1,125	122	(958)	(1,164)	(1,165)	(1,177)
Income Tax Expense	(741)	411	637	527	176	(187)	(250)	(245)	(336)
Property Tax	-	4	(126)	(124)	(129)	(129)	(145)	(163)	(168)
Earned Return	871	675	390	131	(69)	(175)	(224)	(267)	(298)
<i>Total Cost of Service</i>	<u>24,772</u>	<u>26,633</u>	<u>26,875</u>	<u>26,914</u>	<u>26,099</u>	<u>25,223</u>	<u>25,397</u>	<u>26,351</u>	<u>26,585</u>
<b>Average Cost per Customer</b>	<b>58.53</b>	<b>69.03</b>	<b>72.12</b>	<b>70.05</b>	<b>63.99</b>	<b>54.13</b>	<b>49.38</b>	<b>49.73</b>	<b>49.61</b>

**Customer Care Enhancement CPCN**
**Total Cost of Service**

October 2, 2009 Revised Financial Schedules- Accounting Changes/IFRS, ROE and Capital Structure &amp; 10% increase in Ongoing O&amp;M

	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>CIS Software</b>									
CCE Customer Care O&M Costs	997	997	997	997	997	997	997	997	997
Overhead Capitalized	19	19	18	15	14	14	14	13	13
Amortization	-	-	-	-	-	-	-	-	-
Depreciation	669	1,337	1,333	1,330	1,327	655	(16)	(15)	(14)
Income Tax Expense	(756)	(488)	504	483	462	224	(4)	(4)	(4)
Property Tax	-	-	(1)	11	20	19	18	8	(2)
Earned Return	203	485	362	240	118	27	(3)	(3)	(3)
<i>Total Cost of Service</i>	<u>1,132</u>	<u>2,350</u>	<u>3,213</u>	<u>3,076</u>	<u>2,938</u>	<u>1,935</u>	<u>1,005</u>	<u>996</u>	<u>988</u>
<b>CIS Implementation &amp; Maintenance</b>									
CCE Customer Care O&M Costs	1,934	2,362	2,397	2,434	2,472	2,512	2,576	2,642	2,709
Overhead Capitalized	36	45	43	37	35	35	36	35	36
Amortization	2,272	2,272	2,272	2,272	2,272	2,272	2,272	2,272	2,272
Depreciation	3,880	6,215	6,207	6,198	5,421	2,394	142	188	234
Income Tax Expense	(2,040)	(81)	3,268	3,173	2,809	1,639	809	784	796
Property Tax	-	0	67	117	144	136	118	71	37
Earned Return	2,986	3,843	3,070	2,298	1,562	1,039	756	552	344
<i>Total Cost of Service</i>	<u>9,068</u>	<u>14,657</u>	<u>17,323</u>	<u>16,530</u>	<u>14,716</u>	<u>10,029</u>	<u>6,708</u>	<u>6,544</u>	<u>6,428</u>
<b>Call Centre</b>									
<b>Lower Mainland</b>									
CCE Customer Care O&M Costs	11,006	10,857	11,321	11,806	12,312	12,609	12,912	13,222	13,539
Overhead Capitalized	307	309	303	278	271	272	273	271	272
Amortization	364	364	364	364	364	364	364	364	-
Depreciation	3,632	3,678	3,617	3,559	2,593	1,551	1,451	1,697	1,941
Income Tax Expense	(322)	1,154	1,243	1,138	649	189	147	(205)	52
Property Tax	-	35	24	36	33	30	13	(4)	(7)
Earned Return	2,214	1,895	1,504	1,119	825	622	428	337	239
<i>Total Cost of Service</i>	<u>17,201</u>	<u>18,292</u>	<u>18,375</u>	<u>18,300</u>	<u>17,046</u>	<u>15,636</u>	<u>15,588</u>	<u>15,682</u>	<u>16,036</u>
<b>Interior</b>									
CCE Customer Care O&M Costs	5,675	5,594	5,820	6,055	6,301	6,442	6,586	6,734	6,885
Overhead Capitalized	107	107	105	93	90	90	91	90	90
Amortization	327	327	327	327	327	327	327	327	-
Depreciation	2,002	2,079	2,058	2,038	1,252	378	282	405	527
Income Tax Expense	(580)	691	841	818	498	182	181	41	160
Property Tax	-	6	20	32	31	30	18	5	3
Earned Return	1,463	1,300	1,073	849	683	592	525	510	499
<i>Total Cost of Service</i>	<u>8,994</u>	<u>10,105</u>	<u>10,244</u>	<u>10,212</u>	<u>9,183</u>	<u>8,042</u>	<u>8,009</u>	<u>8,112</u>	<u>8,164</u>
<b>Billing Operations</b>									
CCE Customer Care O&M Costs	29,375	30,609	31,571	32,558	33,579	34,475	35,151	36,498	37,371
Overhead Capitalized	638	674	653	583	561	565	566	568	570
Amortization	283	283	283	283	283	283	283	283	-
Depreciation	1,780	1,852	1,719	1,596	737	(259)	(444)	(425)	(415)
Income Tax Expense	(719)	476	744	677	368	26	(38)	(33)	(125)
Property Tax	-	4	(51)	(44)	(43)	(39)	(50)	(65)	(68)
Earned Return	897	749	501	269	86	(12)	(57)	(95)	(122)
<i>Total Cost of Service</i>	<u>32,254</u>	<u>34,646</u>	<u>35,420</u>	<u>35,922</u>	<u>35,571</u>	<u>35,038</u>	<u>35,411</u>	<u>36,731</u>	<u>37,212</u>
<b>Average Cost per Customer</b>	<b>71.53</b>	<b>82.67</b>	<b>86.56</b>	<b>85.14</b>	<b>79.75</b>	<b>70.28</b>	<b>65.72</b>	<b>66.41</b>	<b>66.52</b>

**Customer Care Enhancement CPCN**
**Total Cost of Service**

October 2, 2009 Revised Financial Schedules- Accounting Changes/IFRS, ROE and Capital Structure &amp; 10% Reduction in Ongoing O&amp;M

	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>CIS Software</b>									
CCE Customer Care O&M Costs	816	816	816	816	816	816	816	816	816
Overhead Capitalized	33	34	32	30	29	28	28	28	28
Amortization	-	-	-	-	-	-	-	-	-
Depreciation	668	1,332	1,326	1,320	1,314	640	(30)	(29)	(28)
Income Tax Expense	(757)	(489)	502	480	458	219	(9)	(8)	(8)
Property Tax	-	-	(3)	9	18	17	16	6	(4)
Earned Return	202	483	360	237	115	24	(7)	(6)	(6)
<i>Total Cost of Service</i>	<u>963</u>	<u>2,176</u>	<u>3,032</u>	<u>2,891</u>	<u>2,749</u>	<u>1,744</u>	<u>814</u>	<u>806</u>	<u>797</u>
<b>CIS Implementation &amp; Maintenance</b>									
CCE Customer Care O&M Costs	1,582	1,932	1,961	1,991	2,023	2,055	2,108	2,161	2,217
Overhead Capitalized	65	80	78	73	71	72	73	74	75
Amortization	2,272	2,272	2,272	2,272	2,272	2,272	2,272	2,272	2,272
Depreciation	3,877	6,206	6,191	6,175	5,391	2,360	106	152	197
Income Tax Expense	(2,041)	(84)	3,263	3,166	2,800	1,629	798	773	785
Property Tax	-	0	64	113	140	132	113	66	32
Earned Return	2,985	3,840	3,065	2,291	1,554	1,031	748	544	336
<i>Total Cost of Service</i>	<u>8,740</u>	<u>14,247</u>	<u>16,893</u>	<u>16,081</u>	<u>14,251</u>	<u>9,551</u>	<u>6,218</u>	<u>6,042</u>	<u>5,914</u>
<b>Call Centre</b>									
<b>Lower Mainland</b>									
CCE Customer Care O&M Costs	9,005	8,883	9,263	9,660	10,074	10,316	10,564	10,818	11,077
Overhead Capitalized	467	467	468	450	450	455	461	464	469
Amortization	364	364	364	364	364	364	364	364	-
Depreciation	3,616	3,630	3,537	3,445	2,444	1,382	1,276	1,517	1,756
Income Tax Expense	(327)	1,138	1,217	1,102	602	137	95	(256)	1
Property Tax	-	35	5	17	12	8	(10)	(28)	(32)
Earned Return	2,208	1,877	1,477	1,086	788	583	388	295	196
<i>Total Cost of Service</i>	<u>15,333</u>	<u>16,394</u>	<u>16,330</u>	<u>16,123</u>	<u>14,734</u>	<u>13,245</u>	<u>13,138</u>	<u>13,173</u>	<u>13,467</u>
<b>Interior</b>									
CCE Customer Care O&M Costs	4,644	4,577	4,762	4,954	5,156	5,271	5,389	5,510	5,633
Overhead Capitalized	189	189	189	181	182	184	187	188	190
Amortization	327	327	327	327	327	327	327	327	-
Depreciation	1,993	2,055	2,017	1,980	1,176	291	193	313	433
Income Tax Expense	(582)	683	828	799	474	155	154	15	134
Property Tax	-	6	10	22	21	19	6	(8)	(10)
Earned Return	1,460	1,291	1,059	832	664	572	504	489	477
<i>Total Cost of Service</i>	<u>8,031</u>	<u>9,127</u>	<u>9,192</u>	<u>9,095</u>	<u>7,999</u>	<u>6,820</u>	<u>6,759</u>	<u>6,834</u>	<u>6,858</u>
<b>Billing Operations</b>									
CCE Customer Care O&M Costs	24,034	25,044	25,830	26,638	27,473	28,207	28,760	29,862	30,577
Overhead Capitalized	1,065	1,119	1,112	1,056	1,050	1,066	1,077	1,099	1,114
Amortization	283	283	283	283	283	283	283	283	-
Depreciation	1,737	1,722	1,499	1,282	327	(725)	(924)	(918)	(923)
Income Tax Expense	(734)	433	673	577	240	(116)	(180)	(174)	(266)
Property Tax	-	4	(101)	(97)	(100)	(99)	(113)	(130)	(135)
Earned Return	879	700	427	177	(17)	(121)	(169)	(210)	(239)
<i>Total Cost of Service</i>	<u>27,266</u>	<u>29,304</u>	<u>29,723</u>	<u>29,916</u>	<u>29,256</u>	<u>28,495</u>	<u>28,735</u>	<u>29,811</u>	<u>30,127</u>
<b>Average Cost per Customer</b>	<b>62.86</b>	<b>73.58</b>	<b>76.93</b>	<b>75.08</b>	<b>69.24</b>	<b>59.52</b>	<b>54.83</b>	<b>55.29</b>	<b>55.25</b>

**Attachment 127.1**

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**Customer Care Enhancement Project- Revised October 2, 2009 Consolidated**  
**Estimated Project Implementation Costs in \$000s**

<u>TGI Component</u>	<u>Reference</u>	<u>Total</u>	2009	2010	2011	2012
<b>Capital - CIS Implementation</b>						
1 Consulting		33,782	862	12,944	16,439	3,537
2 Internal Labour		6,543	-	2,453	3,444	646
3 Expenses		9,145	-	1,283	6,350	1,512
4 Software		5,823	-	4,885	938	-
5 Hardware		<u>996</u>	<u>-</u>	<u>731</u>	<u>265</u>	<u>-</u>
<b>6 Subtotal</b>		56,289	862	22,296	27,436	5,695
<b>Capital - Services Insourcing</b>						
7 Consulting		29,892	770	3,564	21,056	4,502
8 Internal Labour		4,209	-	1,622	2,587	-
9 Facilities		7,821	-	1,207	6,614	-
10 Expenses		163	163	-	-	-
11 Software		1,193	-	605	588	-
12 Hardware		<u>2,235</u>	<u>-</u>	<u>-</u>	<u>2,235</u>	<u>-</u>
<b>13 Subtotal</b>		45,513	933	6,998	33,080	4,502
<b>Total Plant Additions</b>						
14 CIS		56,289	862	22,296	27,436	5,695
15 Service Insourcing		45,513	933	6,998	33,080	4,502
16 Subtotal		<u>101,803</u>	<u>1,795</u>	<u>29,294</u>	<u>60,517</u>	<u>10,197</u>
17 AFUDC		3,239	-	919	2,320	-
<b>18 Total Plant Additions</b>	x-ref S3b, (2010 column, lines 25 + 237 + 449) + lines 37 + 249 + 461	<b>105,042</b>	<b>1,795</b>	<b>30,213</b>	<b>62,837</b>	<b>10,197</b>
<b>Deferred O&amp;M</b>						
19 Internal Labour		9,210	-	77	9,133	-
20 Expenses		<u>867</u>	<u>-</u>	<u>-</u>	<u>867</u>	<u>-</u>
<b>21 Subtotal</b>	x-ref S3b, lines 203 + 415 + 627	10,077	-	77	10,000	-
22 AFUDC	x-ref S3b, lines 207 + 419 + 631	<u>316</u>	<u>-</u>	<u>2</u>	<u>314</u>	<u>0</u>
<b>23 Total Deferred O&amp;M</b>		<b>10,393</b>	<b>-</b>	<b>79</b>	<b>10,314</b>	<b>-</b>
24 Capital Lease		6,677	50	104	6,523	
<b>25 Total</b>		<b>122,112</b>	<b>1,845</b>	<b>30,395</b>	<b>79,674</b>	<b>10,197</b>

Financial Schedule 2  
**Customer Care Enhancement Project- Revised October 2, 2009 Consolidated**  
**Estimated Customer Care O&M Costs in \$000s, Except Cost /Customer Amounts**

Reference	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
1 Labour			20,289	20,343	21,218	22,132	23,088	23,628	24,190	24,746	25,326	25,920	26,529	27,152	27,791	28,445	29,116	29,802	30,506	31,227	31,966	32,723
2 Outsourced Services			20,309	21,480	22,069	22,669	23,287	23,921	24,351	25,386	25,987	26,464	27,241	28,021	28,799	29,622	30,748	31,447	32,380	33,319	34,285	35,243
3 Technology Support			1,479	1,464	1,448	1,433	1,418	1,402	1,407	1,412	1,417	1,422	1,427	1,432	1,438	1,443	1,448	1,454	1,459	1,465	1,470	1,476
4 Facilities Support			3,189	3,253	3,318	3,384	3,452	3,521	3,591	3,663	3,736	3,811	3,887	3,965	4,044	4,125	4,208	4,292	4,378	4,465	4,554	4,646
5 Expenses			970	998	1,018	1,038	1,059	1,080	1,102	1,124	1,146	1,169	1,193	1,217	1,241	1,266	1,291	1,317	1,343	1,370	1,397	1,425
6 Total			46,237	47,538	49,071	50,657	52,303	53,552	54,632	56,332	57,613	58,786	60,276	61,787	63,313	64,901	66,810	68,312	70,066	71,846	73,673	75,513
7 Ave Customers			959,757	968,338	977,113	986,272	995,548	1,004,941	1,014,455	1,024,090	1,033,849	1,043,735	1,053,749	1,063,895	1,074,174	1,084,589	1,095,142	1,105,836	1,116,674	1,127,658	1,138,791	1,150,075
8 Cost /Customer			48.18	49.09	50.22	51.36	52.54	53.29	53.85	55.01	55.73	56.32	57.20	58.08	58.94	59.84	61.01	61.77	62.75	63.71	64.69	65.66

\*Note- Total costs include annual lease payment of \$1.7 million; the revenue requirement includes this as a capital lease and therefore it is accounted for through depreciation, tax and earned return.

Financial Schedule 3a

**Customer Care Enhancement Project- Revised October 2, 2009 Consolidated****Rate Base Summary in \$000s**

\* Note- the revenue requirement and tax expense amount showing in 2011 are for financial model purposes only; as requested in the CPCN Application from June 2, 2009, all costs prior to January 1, 2012 will be captured in an AFUDC earning non-rate base deferral account.

	Reference	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
<b>Consolidated</b>																							
1 Opening Gas Plant In Service		-	-	41,259	102,116	99,073	96,072	93,276	89,687	86,734	83,928	54,106	(8,535)	(8,373)	(8,278)	(8,413)	(8,618)	(8,824)	(8,584)	(9,250)	(9,475)	(9,710)	(9,957)
2 Additions		-	41,259	60,857	(3,042)	(3,001)	(2,797)	(1,354)	(1,882)	(2,806)	1,219	(2,855)	(1,480)	(2,006)	(2,932)	(2,959)	(2,987)	(1,166)	1,453	(3,080)	(3,115)	(3,153)	(1,794)
3 Retirements		-	-	-	-	-	-	(2,235)	(1,071)	-	(31,042)	(59,786)	1,642	2,101	2,797	2,754	2,782	1,406	(2,119)	2,855	2,880	2,906	1,532
4 Closing Gas Plant In Service		-	41,259	102,116	99,073	96,072	93,276	89,687	86,734	83,928	54,106	(8,535)	(8,373)	(8,278)	(8,413)	(8,618)	(8,824)	(8,584)	(9,250)	(9,475)	(9,710)	(9,957)	(10,219)
5																							
6 Opening Accumulated Depreciation		-	-	-	(4,439)	(16,565)	(28,311)	(39,682)	(48,468)	(57,907)	(68,035)	(46,770)	6,966	7,104	6,763	5,715	4,727	3,736	4,147	8,053	7,068	6,085	5,107
7 Depreciation		-	-	(4,439)	(12,126)	(11,746)	(11,371)	(11,021)	(10,510)	(10,128)	(9,777)	(6,050)	1,781	1,760	1,748	1,765	1,791	1,817	1,787	1,870	1,898	1,927	1,958
8 Retirements		-	-	-	-	-	-	2,235	1,071	-	31,042	59,786	(1,642)	(2,101)	(2,797)	(2,754)	(2,782)	(1,406)	2,119	(2,855)	(2,880)	(2,906)	(1,532)
9 Closing Accumulated Depreciation		-	-	(4,439)	(16,565)	(28,311)	(39,682)	(48,468)	(57,907)	(68,035)	(46,770)	6,966	7,104	6,763	5,715	4,727	3,736	4,147	8,053	7,068	6,085	5,107	5,533
10																							
11 Opening Contributions in Aid of Construction		-	-	(3,525)	(13,333)	(19,973)	(19,973)	(19,973)	(19,973)	(19,973)	(19,973)	(16,892)	(7,133)	(494)	(494)	(494)	(494)	(494)	(542)	(535)	(485)	(485)	(485)
12 Additions		-	(3,525)	(9,808)	(6,640)	-	-	-	-	-	(444)	(49)	-	-	-	-	-	(49)	(437)	-	-	-	-
13 Retirements		-	-	-	-	-	-	-	-	-	3,525	9,808	6,640	-	-	-	-	-	444	49	-	-	-
14 Closing Contributions in Aid of Construction		-	(3,525)	(13,333)	(19,973)	(19,973)	(19,973)	(19,973)	(19,973)	(19,973)	(16,892)	(7,133)	(494)	(494)	(494)	(494)	(494)	(542)	(535)	(485)	(485)	(485)	(485)
15																							
16 Opening Amortization of Contributions in Aid of Construction		-	-	-	441	2,107	4,604	7,100	9,597	12,094	14,590	13,562	5,865	117	179	241	302	364	426	49	67	127	188
17 Amortization		-	-	-	-	-	-	-	-	-	(3,525)	(9,808)	(6,640)	-	-	-	-	-	(444)	(49)	-	-	-
18 Retirements		-	-	441	1,667	2,497	2,497	2,497	2,497	2,497	2,497	2,111	892	62	62	62	62	62	68	67	61	61	61
19 Closing Amortization of Contributions in Aid of Construction		-	-	441	2,107	4,604	7,100	9,597	12,094	14,590	13,562	5,865	117	179	241	302	364	426	49	67	127	188	249
20																							
21 Opening Net Plant In Service		-	-	37,734	84,784	64,643	52,393	40,722	30,843	20,948	10,511	4,006	(2,837)	(1,646)	(1,829)	(2,951)	(4,083)	(5,217)	(4,553)	(1,683)	(2,826)	(3,982)	(5,147)
22 Closing Net Plant In Service		-	37,734	84,784	64,643	52,393	40,722	30,843	20,948	10,511	4,006	(2,837)	(1,646)	(1,829)	(2,951)	(4,083)	(5,217)	(4,553)	(1,683)	(2,826)	(3,982)	(5,147)	(4,922)
23																							
24 Mid Year Net Plant in Service	(line 21 + line 22)/2	-	18,867	61,259	74,714	58,518	46,557	35,783	25,896	15,730	7,258	584	(2,241)	(1,737)	(2,390)	(3,517)	(4,650)	(4,885)	(3,118)	(2,254)	(3,404)	(4,564)	(5,034)
25																							
26 Opening Deferred Charges		-	57	7,720	6,755	5,790	4,825	3,860	2,895	1,930	965	-	-	-	-	-	-	-	-	-	-	-	-
27 Additions	57	-	7,663	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28 Amortization		-	-	(965)	(965)	(965)	(965)	(965)	(965)	(965)	(965)	-	-	-	-	-	-	-	-	-	-	-	-
29 Closing Deferred Charges	57	7,720	6,755	5,790	4,825	3,860	2,895	1,930	965	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30																							
31 Mid Year Deferred Charges		-	-	7,238	6,273	5,308	4,343	3,378	2,413	1,448	483	-	-	-	-	-	-	-	-	-	-	-	-
32 Capital Lease Rate Base		-	15,834	14,167	12,500	10,834	9,167	7,500	5,834	4,167	2,500	833	15,834	14,167	12,500	10,834	9,167	7,500	5,834	4,167	2,500	833	-
33 13 Month Adjustment (row 211, S3b)		-	-	(6,528)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34																							
<b>35 Total Rate Base</b>		-	34,701	76,136	93,487	74,659	60,067	46,660	34,142	21,344	10,241	1,417	13,592	12,430	10,110	7,317	4,517	2,615	2,715	1,913	(904)	(3,731)	(5,034)



[illegible]

## Customer Care Enhancement Project- Revised October 2, 2009 Consolidated

## Rate Base Detail in \$000s

\* Note- the revenue requirement and tax expense amount showing in 2011 are for financial model purposes only; as requested in the CPCN Application from June 2, 2009, all costs prior to January 1, 2012 will be captured in an AFUDC earning non-rate base deferral account.

	Reference	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
85	Training	-	-	1,008	1,047	1,047	1,047	1,047	1,047	1,047	1,047	39	-	-	-	-	-	-	-	-	-	-	-
86	Incremental O&M and Capitalized Overhead	-	-	-	(2,926)	(5,968)	(8,969)	(11,766)	(14,520)	(17,301)	(20,107)	(22,938)	(22,867)	(22,705)	(22,610)	(22,746)	(22,951)	(23,156)	(23,366)	(23,583)	(23,807)	(24,042)	(24,289)
87	Total Opening Plant Balance	-	-	41,259	102,116	99,073	96,072	93,276	89,687	86,734	83,928	54,106	(8,535)	(8,373)	(8,278)	(8,413)	(8,618)	(8,824)	(8,584)	(9,250)	(9,475)	(9,710)	(9,957)
88																							
89	Additions																						
90	Hardware	-	2,235	1,071	-	-	-	1,400	900	-	-	-	1,400	900	-	-	-	1,400	900	-	-	-	1,400
91	Software	-	1,210	6,299	-	-	-	-	-	-	450	-	-	-	-	-	-	450	-	-	-	-	-
92	Land	-	731	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
93	Buildings	-	7,251	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
94	Vendor Fees	-	10,985	35,854	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
95	Installer Fees	-	14,420	13,458	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
96	Internal Labour	-	1,784	6,873	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
97	Internal Materials	-	1,634	188	-	-	-	-	-	-	3,600	-	-	-	-	-	-	-	-	3,600	-	-	-
98	Training	-	1,008	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
99	Incremental O&M and Capitalized Overhead	-	-	(2,926)	(3,042)	(3,001)	(2,797)	(2,754)	(2,782)	(2,806)	(2,831)	(2,855)	(2,880)	(2,906)	(2,932)	(2,959)	(2,987)	(3,016)	(3,047)	(3,080)	(3,115)	(3,153)	(3,194)
100	Total Additions	-	41,259	60,857	(3,042)	(3,001)	(2,797)	(1,354)	(1,882)	(2,806)	1,219	(2,855)	(1,480)	(2,006)	(2,932)	(2,959)	(2,987)	(1,166)	1,453	(3,080)	(3,115)	(3,153)	(1,794)
101																							
102	Retirements																						
103	Hardware	-	-	-	-	-	-	(2,235)	(1,071)	-	-	-	(1,400)	(900)	-	-	-	(1,400)	(900)	-	-	-	(1,400)
104	Software	-	-	-	-	-	-	-	-	-	(1,210)	(6,299)	-	-	-	-	-	(450)	-	-	-	-	-
105	Land	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
106	Buildings	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
107	Vendor Fees	-	-	-	-	-	-	-	-	-	(10,985)	(35,854)	-	-	-	-	-	-	-	-	-	-	-
108	Installer Fees	-	-	-	-	-	-	-	-	-	(14,420)	(13,458)	-	-	-	-	-	-	-	-	-	-	-
109	Internal Labour	-	-	-	-	-	-	-	-	-	(1,784)	(6,873)	-	-	-	-	-	-	-	-	-	-	-
110	Internal Materials	-	-	-	-	-	-	-	-	-	(1,634)	(188)	-	-	-	-	-	-	-	-	-	-	-
111	Training	-	-	-	-	-	-	-	-	-	(1,008)	(39)	-	-	-	-	-	-	(3,600)	-	-	-	-
112	Incremental O&M and Capitalized Overhead	-	-	-	-	-	-	-	-	-	2,926	3,042	3,001	2,797	2,754	2,782	2,806	2,831	2,855	2,880	2,906	2,932	
113	Total Retirements	-	-	-	-	-	-	(2,235)	(1,071)	-	(31,042)	(59,786)	1,642	2,101	2,797	2,754	2,782	1,406	(2,119)	2,855	2,880	2,906	1,532
114																							
115	Closing Plant Balance																						
116	Hardware	-	2,235	3,306	3,306	3,306	3,306	2,471	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300
117	Software	-	1,210	7,509	7,509	7,509	7,509	7,509	7,509	7,509	6,749	450	450	450	450	450	450	900	450	450	450	450	450
118	Land	-	731	731	731	731	731	731	731	731	731	731	731	731	731	731	731	731	731	731	731	731	731
119	Buildings	-	7,251	7,251	7,251	7,251	7,251	7,251	7,251	7,251	7,251	7,251	7,251	7,251	7,251	7,251	7,251	7,251	7,251	7,251	7,251	7,251	7,251
120	Vendor Fees	-	10,985	46,839	46,839	46,839	46,839	46,839	46,839	46,839	35,854	-	-	-	-	-	-	-	-	-	-	-	-
121	Installer Fees	-	14,420	27,878	27,878	27,878	27,878	27,878	27,878	27,878	13,458	-	-	-	-	-	-	-	-	-	-	-	-
122	Internal Labour	-	1,784	8,658	8,658	8,658	8,658	8,658	8,658	8,658	6,873	-	-	-	-	-	-	-	-	-	-	-	-
123	Internal Materials	-	1,634	1,822	1,822	1,822	1,822	1,822	1,822	1,822	3,788	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600
124	Training	-	1,008	1,047	1,047	1,047	1,047	1,047	1,047	39	-	-	-	-	-	-	-	-	-	-	-	-	-
125	Incremental O&M and Capitalized Overhead	-	-	(2,926)	(5,968)	(8,969)	(11,766)	(14,520)	(17,301)	(20,107)	(22,938)	(22,867)	(22,705)	(22,610)	(22,746)	(22,951)	(23,156)	(23,366)	(23,583)	(23,807)	(24,042)	(24,289)	(24,551)
126	Total Closing Plant Balance	-	41,259	102,116	99,073	96,072	93,276	89,687	86,734	83,928	54,106	(8,535)	(8,373)	(8,278)	(8,413)	(8,618)	(8,824)	(8,584)	(9,250)	(9,475)	(9,710)	(9,957)	(10,219)
127																							
128	Opening Accumulated Depreciation																						
129	Hardware	-	-	-	(447)	(1,108)	(1,769)	(2,431)	(857)	(280)	(740)	(1,200)	(1,660)	(720)	(280)	(740)	(1,200)	(1,660)	(720)	(280)	(740)	(1,200)	(1,660)
130	Software	-	-	-	(151)	(1,090)	(2,028)	(2,967)	(3,906)	(4,844)	(5,783)	(5,511)	(56)	(113)	(169)	(225)	(281)	(338)	(394)	(56)	(113)	(169)	(225)
131	Land	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
132	Buildings	-	-	-	(112)	(223)	(335)	(446)	(558)	(669)	(781)	(892)	(1,004)	(1,116)	(1,227)	(1,339)	(1,450)	(1,562)	(1,673)	(1,785)	(1,897)	(2,008)	(2,120)
133	Vendor Fees	-	-	-	(1,373)	(7,228)	(13,083)	(18,938)	(24,793)	(30,648)	(36,503)	(31,372)	0	0	0	0	0	0	0	0	0	0	0
134	Installer Fees	-	-	-	(1,802)	(5,287)	(8,772)	(12,257)	(15,741)	(19,226)	(22,711)	(11,776)	-	-	-	-	-	-	-	-	-	-	-
135	Internal Labour	-	-	-	(223)	(1,305)	(2,388)	(3,470)	(4,552)	(5,634)	(6,716)	(6,014)	0	0	0	0	0	0	0	0	0	0	0
136	Internal Materials	-	-	-	(204)	(432)	(660)	(888)	(1,115)	(1,343)	(1,571)	(164)	(450)	(900)	(1,350)	(1,800)	(2,250)	(2,700)	(3,150)	(0)	(450)	(900)	(1,350)
137	Training	-	-	-	(126)	(257)	(388)	(519)	(649)	(780)	(911)	(34)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
138	Incremental O&M and Capitalized Overhead	-	-	-	-	366	1,112	2,233	3,704	5,518	7,681	10,194	10,136	9,952	9,789	9,819	9,908	9,996	10,084	10,174	10,267	10,362	10,462
139	Total Consolidated Depreciation Expense	-	-	-	(4,439)	(16,565)	(28,311)	(39,682)	(48,468)	(57,907)	(68,035)	(46,770)	6,966	7,104	6,763	5,715	4,727	3,736	4,147	8,053	7,068	6,085	5,107
140																							
141	Retirements																						
142	Hardware	-	-	-	-	-	-	2,235	1,071	-	-	-	1,400	900	-	-	-	1,400	900	-	-	-	1,400
143	Software	-	-	-	-	-	-	-	-	-	1,210	6,299	-	-	-	-	-	450	-	-	-	-	-
144	Land	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
145	Buildings	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
146	Vendor Fees	-	-	-	-	-	-	-	-	-	10,985	35,854	-	-	-	-	-	-	-	-	-	-	-
147	Installer Fees	-	-	-	-	-	-	-	-	-	14,420	13,458	-	-	-	-	-	-	-	-	-	-	-
148	Internal Labour	-	-	-	-	-	-	-	-	-	1,784	6,873	-	-	-	-	-	-	-	-	-	-	-
149	Internal Materials	-	-	-	-	-	-	-	-	-	1,634	188	-	-	-	-	-	-	3,600	-	-	-	-
150	Training	-	-	-	-	-	-	-	-	-	1,008	39	-	-	-	-	-	-	-	-	-	-	-
151	Incremental O&M and Capitalized Overhead	-	-	-	-	-	-	-	-	-	-	(2,926)	(3,042)	(3,001)	(2,797)	(2,754)	(2,782)	(2,806)	(2,831)	(2,855)	(2,880)	(2,906)	(2,932)
152	Total Closing Accumulated Depreciation	-	-	-	-	-	-	2,235	1,071	-	31,042	59,786	(1,642)	(2,101)	(2,797)	(2,754)	(2,782)	(1,406)	2,119	(2,855)	(2,880)	(2,906)	(1,532)
153																							
154	Depreciation Expense																						
155	Hardware	-	-	(447)	(661)	(661)	(661)	(661)	(494)	(460)	(460)	(460)	(460)	(460)	(460)	(460)	(460)	(460)	(460)	(460)	(460)	(460)	(460)
156	Software	-	-	(151)	(939)	(939)	(939)	(939)	(939)	(939)	(939)	(844)	(56)	(56)	(56)	(56)	(56)	(56)	(113)	(56)	(56)	(56)	(56)
15																							

## Customer Care Enhancement Project- Revised October 2, 2009 Consolidated

## Rate Base Detail in \$000s

\* Note- the revenue requirement and tax expense amount showing in 2011 are for financial model purposes only; as requested in the CPCN Application from June 2, 2009, all costs prior to January 1, 2012 will be captured in an AFUDC earning non-rate base deferral account.

Reference	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
172 Vendor Fees	-	-	(1,373)	(7,228)	(13,083)	(18,938)	(24,793)	(30,648)	(36,503)	(31,372)	0	0	0	0	0	0	0	0	0	0	0	0
173 Installer Fees	-	-	(1,802)	(5,287)	(8,772)	(12,257)	(15,741)	(19,226)	(22,711)	(11,776)	-	-	-	-	-	-	-	-	-	-	-	-
174 Internal Labour	-	-	(223)	(1,305)	(2,388)	(3,470)	(4,552)	(5,634)	(6,716)	(6,014)	0	0	0	0	0	0	0	0	0	0	0	0
175 Internal Materials	-	-	(204)	(432)	(660)	(888)	(1,115)	(1,343)	(1,571)	(164)	(450)	(900)	(1,350)	(1,800)	(2,250)	(2,700)	(3,150)	(0)	(450)	(900)	(1,350)	(1,800)
176 Training	-	-	(126)	(257)	(388)	(519)	(649)	(780)	(911)	(34)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
177 Incremental O&M and Capitalized Overhead	-	-	-	366	1,112	2,233	3,704	5,518	7,681	10,194	10,136	9,952	9,789	9,819	9,908	9,996	10,084	10,174	10,267	10,362	10,462	10,566
178 Total Closing Accumulated Depreciation	-	-	(4,439)	(16,565)	(28,311)	(39,682)	(48,468)	(57,907)	(68,035)	(46,770)	6,966	7,104	6,763	5,715	4,727	3,736	4,147	8,053	7,068	6,085	5,107	5,533
179	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
180 Opening GPIS	-	-	41,259	102,116	99,073	96,072	93,276	89,687	86,734	83,928	54,106	(8,535)	(8,373)	(8,278)	(8,413)	(8,618)	(8,824)	(8,584)	(9,250)	(9,475)	(9,710)	(9,957)
181 Closing GPIS	-	41,259	102,116	99,073	96,072	93,276	89,687	86,734	83,928	54,106	(8,535)	(8,373)	(8,278)	(8,413)	(8,618)	(8,824)	(8,584)	(9,250)	(9,475)	(9,710)	(9,957)	(10,219)
182 Mid-Year GPIS	-	20,629	71,687	100,594	97,573	94,674	91,481	88,211	85,331	69,017	22,786	(8,454)	(8,325)	(8,346)	(8,516)	(8,721)	(8,704)	(8,917)	(9,363)	(9,592)	(9,833)	(10,088)
183	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
184 Opening Accumulated Depreciation	-	-	-	(4,439)	(16,565)	(28,311)	(39,682)	(48,468)	(57,907)	(68,035)	(46,770)	6,966	7,104	6,763	5,715	4,727	3,736	4,147	8,053	7,068	6,085	5,107
185 Closing Accumulated Depreciation	-	-	(4,439)	(16,565)	(28,311)	(39,682)	(48,468)	(57,907)	(68,035)	(46,770)	6,966	7,104	6,763	5,715	4,727	3,736	4,147	8,053	7,068	6,085	5,107	5,533
186 Mid-Year Accumulated Depreciation	-	-	(2,219)	(10,502)	(22,438)	(33,996)	(44,075)	(53,187)	(62,971)	(57,403)	(19,902)	7,035	6,934	6,239	5,221	4,231	3,942	6,100	7,560	6,577	5,596	5,320
187	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
188 Consolidated Mid-Year Net Plant in Service	-	20,629	69,468	90,093	75,135	60,678	47,407	35,023	22,361	11,615	2,883	(1,419)	(1,392)	(2,106)	(3,295)	(4,489)	(4,762)	(2,817)	(1,802)	(3,016)	(4,237)	(4,767)
189	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
190 Consolidated Software CIAOC Opening Balance	-	-	(3,525)	(13,333)	(19,973)	(19,973)	(19,973)	(19,973)	(19,973)	(19,973)	(16,892)	(7,133)	(494)	(494)	(494)	(494)	(494)	(542)	(535)	(485)	(485)	(485)
191 Consolidated Software CIAOC Additions	-	(3,525)	(9,808)	(6,640)	-	-	-	-	-	(444)	(49)	-	-	-	-	-	(49)	(437)	-	-	-	-
192 Consolidated Software CIAOC Retirements	-	-	-	-	-	-	-	-	-	3,525	9,808	6,640	-	-	-	-	-	44	49	-	-	-
193 Consolidated Software CIAOC Closing Balance	-	(3,525)	(13,333)	(19,973)	(19,973)	(19,973)	(19,973)	(19,973)	(19,973)	(16,892)	(7,133)	(494)	(494)	(494)	(494)	(494)	(542)	(535)	(485)	(485)	(485)	(485)
194	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
195 Consolidated Software CIAOC Opening Balance Accumulated Depreciation	-	-	-	441	2,107	4,604	7,100	9,597	12,094	14,590	13,562	5,865	117	179	241	302	364	426	49	67	127	188
196 Consolidated Software CIAOC Retirements	-	-	-	-	-	-	-	-	-	(3,525)	(9,808)	(6,640)	-	-	-	-	(444)	(49)	-	-	-	-
197 Consolidated Amortization of Software CIAOC	-	-	441	1,667	2,497	2,497	2,497	2,497	2,497	2,497	2,111	892	62	62	62	62	62	68	67	61	61	61
198 Consolidated Software CIAOC Closing Balance Accumulated Depreciation	-	-	441	2,107	4,604	7,100	9,597	12,094	14,590	13,562	5,865	117	179	241	302	364	426	49	67	127	188	249
199	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
200 Consolidated Mid Year Software CIAOC	-	(1,763)	(8,209)	(15,379)	(16,617)	(14,121)	(11,624)	(9,127)	(6,631)	(4,356)	(2,299)	(822)	(346)	(284)	(222)	(160)	(123)	(301)	(452)	(388)	(328)	(267)
201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
202 Consolidated Opening Deferred Charges	-	57	7,720	6,755	5,790	4,825	3,860	2,895	1,930	965	0	0	0	0	0	0	0	0	0	0	0	0
203 Consolidated O&M Deferred Charge Additions	77	10,001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
204 Consolidated O&M Tax on Deferred Charge Additions	(22)	(2,650)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
205 Consolidated O&M Net Deferred Charge Additions	55	7,351	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
206 Consolidated O&M Amortization Expense	-	-	(965)	(965)	(965)	(965)	(965)	(965)	(965)	(965)	-	-	-	-	-	-	-	-	-	-	-	-
207 Consolidated O&M Deferred Charge AFUDC	2	313	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
208 Consolidated Closing Deferred Charges	57	7,720	6,755	5,790	4,825	3,860	2,895	1,930	965	0	0	0	0	0	0	0	0	0	0	0	0	0
209 Capital Lease Rate Base	-	15,834	14,167	12,500	10,834	9,167	7,500	5,834	4,167	2,500	833	15,834	14,167	12,500	10,834	9,167	7,500	5,834	4,167	2,500	833	-
210 Consolidated Mid-Year Deferred Charges	-	-	7,238	6,273	5,308	4,343	3,378	2,413	1,448	483	-	-	-	-	-	-	-	-	-	-	-	-
211 In-Service Adjustment	-	-	(6,528)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
212 Consolidated Ratebase	-	34,701	76,136	93,487	74,659	60,067	46,660	34,142	21,344	10,241	1,417	13,592	12,430	10,110	7,317	4,517	2,615	2,715	1,913	(904)	(3,731)	(5,034)

Financial Schedule 4a  
**Customer Care Enhancement Project- Revised October 2, 2009 Consolidated**  
**Capital Cost Allowance Summary in \$000s**

\* Note- the revenue requirement and tax expense amount showing in 2011 are for financial model purposes only; as requested in the CPCN Application from June 2, 2009, all costs prior to January 1, 2012 will be captured in an AFUDC earning non-rate base deferral account.

	Reference	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
<b>Consolidated</b>																							
1 Opening UCC Balance		-	-	36,901	89,310	83,215	80,693	78,522	77,745	76,313	74,098	74,339	72,291	71,813	70,661	68,709	66,974	65,401	65,559	66,379	64,374	62,813	61,399
2 Additions		-	40,280	58,962	(1,901)	(1,876)	(1,748)	(321)	(838)	(1,754)	2,281	(1,785)	(400)	(916)	(1,832)	(1,849)	(1,867)	(35)	2,596	(1,925)	(1,947)	(1,971)	(596)
3 CCA		-	(3,379)	(6,554)	(4,193)	(647)	(422)	(456)	(594)	(461)	(2,040)	(263)	(78)	(236)	(119)	114	293	193	(1,775)	(81)	386	557	480
4 Closing UCC Balance		-	36,901	89,310	83,215	80,693	78,522	77,745	76,313	74,098	74,339	72,291	71,813	70,661	68,709	66,974	65,401	65,559	66,379	64,374	62,813	61,399	61,283
5																							
6																							
7																							
8 <b>CCA Rates Used</b>																							
9																							
10 Hardware_CCA	30.00%																						
11 Software_CCA	100.00%																						
12 Buildings_CCA	6.00%																						
13 VendorFees_CCA	100.00%																						
14 InstallerFees_CCA	100.00%																						
15 InternallLabour_CCA	100.00%																						
16 InternallMaterials_CCA	100.00%																						
17 Overhead_Cap_CCA	4.00%																						
18																							
19 Amortization of Software CIAOC	12.50%																						

## Financial Schedule 4b

## Customer Care Enhancement Project- Revised October 2, 2009 Consolidated

## CCA Detail in \$000s

\* Note- the revenue requirement and tax expense amount showing in 2011 are for financial model purposes only; as requested in the CPCN Application from June 2, 2009, all costs prior to January 1, 2012 will be captured in an AFUDC earning non-rate base deferral account.

Reference	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
Consolidated Capital Cost Allowance																							
1	UCC Opening																						
2	Hardware	-	-	1,900	2,176	1,523	1,066	746	1,713	1,964	1,375	962	674	1,662	1,928	1,350	945	661	1,653	1,922	1,345	942	659
3	Software	-	-	597	2,911	-	-	-	-	-	-	225	-	-	-	-	-	225	-	-	-	-	
4	Buildings	-	-	6,995	6,575	6,180	5,810	5,461	5,133	4,825	4,536	4,264	4,008	3,767	3,541	3,329	3,129	2,941	2,765	2,599	2,443	2,296	2,159
5	Vendor Fees	-	-	5,425	17,029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6	Installer Fees	-	-	7,210	6,572	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
7	Internal Labour	-	-	888	3,271	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
8	Internal Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
9	Training	-	-	499	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10	Incremental O&M and Capitalized Overhead	-	-	(1,792)	(3,584)	(5,279)	(6,780)	(8,196)	(9,572)	(10,907)	(12,205)	(13,466)	(14,691)	(15,884)	(17,044)	(18,175)	(19,277)	(20,353)	(21,406)	(22,436)	(23,446)	(24,440)	
11	Total UCC Opening Balance	-	-	23,513	36,763	4,120	1,598	(573)	(1,350)	(2,783)	(4,997)	(6,754)	(8,784)	(9,262)	(10,414)	(12,366)	(14,101)	(15,674)	(15,711)	(16,885)	(18,647)	(20,208)	(21,622)
12																							
13	UCC Additions																						
14	Hardware	-	2,235	996	-	-	1,400	900	-	-	-	1,400	900	-	-	-	1,400	900	-	-	-	1,400	
15	Software	-	1,193	5,823	-	-	-	-	-	450	-	-	-	-	-	-	450	-	-	-	-	-	
16	Buildings	-	7,211	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
17	Vendor Fees	-	10,849	34,058	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
18	Installer Fees	-	14,420	13,144	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
19	Internal Labour	-	1,776	6,543	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
20	Internal Materials	-	1,598	188	-	-	-	-	-	3,600	-	-	-	-	-	-	-	3,600	-	-	-	-	
21	Training	-	998	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
22	Incremental O&M and Capitalized Overhead	-	-	(1,829)	(1,901)	(1,876)	(1,748)	(1,721)	(1,738)	(1,754)	(1,769)	(1,785)	(1,800)	(1,816)	(1,832)	(1,849)	(1,867)	(1,885)	(1,904)	(1,925)	(1,947)	(1,971)	(1,996)
23	Total UCC Additions	-	40,280	58,962	(1,901)	(1,876)	(1,748)	(321)	(838)	(1,754)	2,281	(1,785)	(400)	(916)	(1,832)	(1,849)	(1,867)	(35)	2,596	(1,925)	(1,947)	(1,971)	(596)
24																							
25	CCA																						
26	Hardware	-	(335)	(719)	(653)	(457)	(320)	(434)	(649)	(589)	(412)	(289)	(412)	(633)	(578)	(405)	(283)	(408)	(631)	(577)	(404)	(283)	(408)
27	Consolidated Software CCA	-	(597)	(3,508)	(2,911)	-	-	-	-	(225)	(225)	(225)	-	-	-	-	(225)	(225)	-	-	-	-	
28	Buildings	-	(216)	(420)	(394)	(371)	(349)	(328)	(308)	(290)	(272)	(256)	(240)	(226)	(212)	(200)	(188)	(176)	(166)	(156)	(147)	(138)	(130)
29	Vendor Fees CCA	-	(5,425)	(22,454)	(17,029)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
30	Installer Fees CCA	-	(7,210)	(13,782)	(6,572)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
31	Internal Labour CCA	-	(888)	(4,159)	(3,271)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
32	Internal Materials CCA	-	(799)	(178)	(10)	-	-	-	-	(1,800)	(215)	-	-	-	-	-	-	-	(1,800)	(243)	-	-	
33	Training	-	(499)	(519)	(20)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
34	Incremental O&M and Capitalized Overhead	-	-	37	110	181	246	306	363	418	472	524	575	624	672	719	764	809	852	895	936	977	1,018
35	Total Consolidated CCA	-	(15,969)	(45,702)	(30,751)	(647)	(422)	(456)	(594)	(461)	(2,238)	(461)	(78)	(236)	(119)	114	293	(1)	(1,970)	(81)	386	557	480
36																							
37	UCC Ending Balance																						
38	Hardware	-	1,900	2,176	1,523	1,066	746	1,713	1,964	1,375	962	674	1,662	1,928	1,350	945	661	1,653	1,922	1,345	942	659	1,651
39	Software	-	597	2,911	-	-	-	-	-	-	225	-	-	-	-	-	-	225	-	-	-	-	
40	Buildings	-	6,995	6,575	6,180	5,810	5,461	5,133	4,825	4,536	4,264	4,008	3,767	3,541	3,329	3,129	2,941	2,765	2,599	2,443	2,296	2,159	2,029
41	Vendor Fees	-	5,425	17,029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
42	Installer Fees	-	7,210	6,572	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
43	Internal Labour	-	888	3,271	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44	Internal Materials	-	799	10	(10)	-	-	-	-	-	1,800	(215)	-	-	-	-	-	-	1,800	(243)	-	-	
45	Training	-	499	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
46	Incremental O&M and Capitalized Overhead	-	-	(1,792)	(3,584)	(5,279)	(6,780)	(8,196)	(9,572)	(10,907)	(12,205)	(13,466)	(14,691)	(15,884)	(17,044)	(18,175)	(19,277)	(20,353)	(21,406)	(22,436)	(23,446)	(24,440)	(25,418)
47	Total UCC Ending Balance	-	24,311	36,773	4,110	1,598	(573)	(1,350)	(2,783)	(4,997)	(4,954)	(8,999)	(9,262)	(10,414)	(12,366)	(14,101)	(15,674)	(15,711)	(15,085)	(18,890)	(20,208)	(21,622)	(21,738)
48																							
49	TGI Software CIAOC Addition	-	(3,525)	(9,808)	(6,640)	-	-	-	-	-	(444)	(49)	-	-	-	-	(49)	(437)	-	-	-	-	

Financial Schedule 5

**Customer Care Enhancement Project- Revised October 2, 2009 Consolidated****Revenue Requirement & Rate Impact Analysis in \$000s**

\* Note- the revenue requirement and tax expense amount showing in 2011 are for financial model purposes only; as requested in the CPCN Application from June 2, 2009, all costs prior to January 1, 2012 will be captured in an AFUDC earning non-rate base deferral account.

		Reference	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Consolidated																								
1 Revenue Requirement																								
2																								
3 Operating & Maintenance Expense																								
CCE Customer Care O&M Costs		S2, line 6	-	-	44,534	45,835	47,369	48,954	50,601	51,849	52,929	54,629	55,910	57,084	58,574	60,085	61,610	63,199	65,108	66,609	68,364	70,144	71,971	73,810
Avoided Costs- Existing customer care contract			-	-	(62,819)	(64,850)	(66,125)	(66,433)	(67,813)	(69,234)	(70,466)	(72,321)	(73,757)	(75,087)	(76,736)	(78,410)	(80,103)	(81,866)	(83,959)	(85,654)	(87,614)	(89,613)	(91,676)	(93,773)
Less: Overhead Capitalized			-	-	2,926	3,042	3,001	2,797	2,754	2,782	2,806	2,831	2,855	2,880	2,906	2,932	2,959	2,987	3,016	3,047	3,080	3,115	3,153	3,194
			-	-	(15,360)	(15,973)	(15,755)	(14,682)	(14,458)	(14,603)	(14,731)	(14,861)	(14,991)	(15,122)	(15,256)	(15,393)	(15,534)	(15,681)	(15,836)	(15,998)	(16,170)	(16,354)	(16,553)	(16,768)
8																								
Property & Other Taxes			-	-	-	38	(20)	84	64	58	43	23	5	(16)	(77)	(152)	(146)	(150)	(153)	(157)	(162)	(170)	(168)	(172)
Amortization & Depreciation Expense		line 19 + line 20	-	1,667	6,630	13,091	11,881	11,506	11,156	10,645	10,263	9,912	5,605	(1,006)	(155)	(143)	(160)	(186)	(212)	(188)	(270)	(292)	(321)	(2,019)
Income Tax Expense		line 29	-	(399)	935	4,028	4,568	4,299	3,983	3,593	3,331	2,523	1,534	(137)	(36)	(54)	(50)	(68)	(172)	(865)	(384)	(315)	(350)	(165)
Earned Return			-	2,539	5,772	7,183	5,738	4,617	3,587	2,625	1,641	788	109	1,044	955	777	562	347	201	208	147	(70)	(287)	(388)
13																								
Consolidated Total Cost of Service		x-ref S6, line 33	-	3,807	(2,023)	8,367	6,412	5,824	4,332	2,318	548	(1,615)	(7,737)	(15,237)	(14,570)	(14,966)	(15,328)	(15,738)	(16,172)	(16,999)	(16,838)	(17,201)	(17,680)	(19,512)
15																								
16																								
Income Tax Expense Calculation																								
Equity Earned Return			-	1,057	2,322	2,855	2,284	1,838	1,428	1,045	654	315	44	415	379	309	223	138	79	83	58	(28)	(115)	(155)
Add: Depreciation Expense- excluding capital lease		S3b, line 165	-	-	3,998	10,460	9,249	8,874	8,525	8,013	7,631	7,281	3,938	(2,672)	(1,822)	(1,810)	(1,827)	(1,853)	(1,878)	(1,855)	(1,937)	(1,959)	(1,988)	(2,019)
Add: Amortization Expense		S3b, line 206	-	-	965	965	965	965	965	965	965	965	965	-	-	-	-	-	-	-	-	-	-	-
Less: CCA		S4a, line 3	-	(3,379)	(6,554)	(4,193)	(647)	(422)	(456)	(594)	(461)	(2,040)	(263)	(78)	(236)	(119)	114	293	193	(1,775)	(81)	386	557	480
Less: Overhead Capitalized timing difference			-	-	1,097	1,141	1,125	1,049	1,033	1,043	1,052	1,061	1,071	1,080	1,090	1,099	1,110	1,120	1,131	1,143	1,155	1,168	1,182	1,198
Taxable Income After Tax			-	(2,322)	1,829	11,228	12,976	12,303	11,494	10,473	9,842	7,581	4,790	(1,255)	(588)	(521)	(380)	(302)	(475)	(2,404)	(805)	(433)	(364)	(496)
24																								
Taxable Income			-	(3,160)	2,438	14,971	17,302	16,404	15,326	13,964	13,123	10,108	6,387	(1,673)	(785)	(695)	(507)	(403)	(633)	(3,206)	(1,073)	(577)	(485)	(662)
26																								
Current Income Tax Rate			29%	27%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Capital Lease Tax Expense			-	438	325	285	243	198	152	102	50	(5)	(63)	281	160	119	77	33	(14)	(63)	(115)	(170)	(229)	-
Total Income Tax Expense			-	(399)	935	4,028	4,568	4,299	3,983	3,593	3,331	2,523	1,534	(137)	(36)	(54)	(50)	(68)	(172)	(865)	(384)	(315)	(350)	(165)
30																								

Financial Schedule 6  
Customer Care Enhancement Project- Revised October 2, 2009 Consolidated  
Discounted Cash Flow in \$000s

\* Note- the revenue requirement and tax expense amount showing in 2011 are for financial model purposes only; as requested in the CPCN Application from June 2, 2009, all costs prior to January 1, 2012 will be captured in an AFUDC earning non-rate base deferral account.

Consolidated Project Discounted Cash Flow																							
	Reference	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
3	Capital Spending- Hardware	(731)	(2,500)	-	-	-	-	(1,400)	(900)	-	-	-	(1,400)	(900)	-	-	-	(1,400)	(900)	-	-	-	(1,400)
4	Capital Spending- Software	(27,890)	(50,944)	(10,009)	-	-	-	-	-	-	(450)	-	-	-	-	-	-	(450)	-	-	-	-	-
5	Capital Spending- Buildings & Structures	(2,468)	(7,072)	(188)	-	-	-	-	-	-	(3,600)	-	-	-	-	-	-	-	(3,600)	-	-	-	-
6	Capital Expenditure Cash Flow	(31,089)	(60,516)	(10,197)	-	-	-	(1,400)	(900)	-	(4,050)	-	(1,400)	(900)	-	-	-	(1,850)	(4,500)	-	-	-	(1,400)
8	Revenue Requirement	-	3,807	(2,023)	8,367	6,412	5,824	4,332	2,318	548	(1,615)	(7,737)	(15,237)	(14,570)	(14,966)	(15,328)	(15,738)	(16,172)	(16,999)	(16,838)	(17,201)	(17,680)	(19,512)
9	Incremental O&M	(77)	(10,001)	18,285	19,015	18,756	17,479	17,212	17,385	17,536	17,692	17,847	18,003	18,162	18,325	18,493	18,667	18,852	19,045	19,250	19,469	19,706	19,962
10	Property Tax 1% in Lieu	-	-	(38)	20	(84)	(64)	(58)	(43)	(23)	(5)	16	77	152	146	150	153	157	162	170	168	172	
11	Operating & Other Expense Cash Flow	(77)	(6,194)	16,263	27,344	25,188	23,214	21,480	19,644	18,041	16,053	10,104	2,782	3,669	3,511	3,311	3,080	2,833	2,203	2,573	2,439	2,194	622
12	Tax Expense Cash Flow	22	1,641	(4,066)	(6,836)	(6,297)	(5,805)	(5,370)	(4,911)	(4,510)	(4,013)	(2,526)	(696)	(917)	(878)	(828)	(770)	(708)	(551)	(643)	(610)	(549)	(155)
13	After Tax Operating & Other Expense Cash Flow	(55)	(4,552)	12,197	20,508	18,891	17,414	16,110	14,733	13,531	12,040	7,578	2,087	2,752	2,633	2,483	2,310	2,125	1,652	1,930	1,829	1,646	466
15	Terminal Value Cash Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	Annual Cash Flow	(31,144)	(65,068)	2,000	20,508	18,891	17,414	14,710	13,833	13,531	7,990	7,578	687	1,852	2,633	2,483	2,310	275	(2,848)	1,930	1,829	1,646	(934)
19	Annual Discounted Cash Flow (mid year)	(30,285)	(59,373)	1,718	16,377	14,132	12,213	9,672	8,527	7,820	4,327	3,848	323	826	1,102	974	850	95	(921)	586	519	438	(233)
21	Total Project Discounted Cash Flow	(6,465)																					

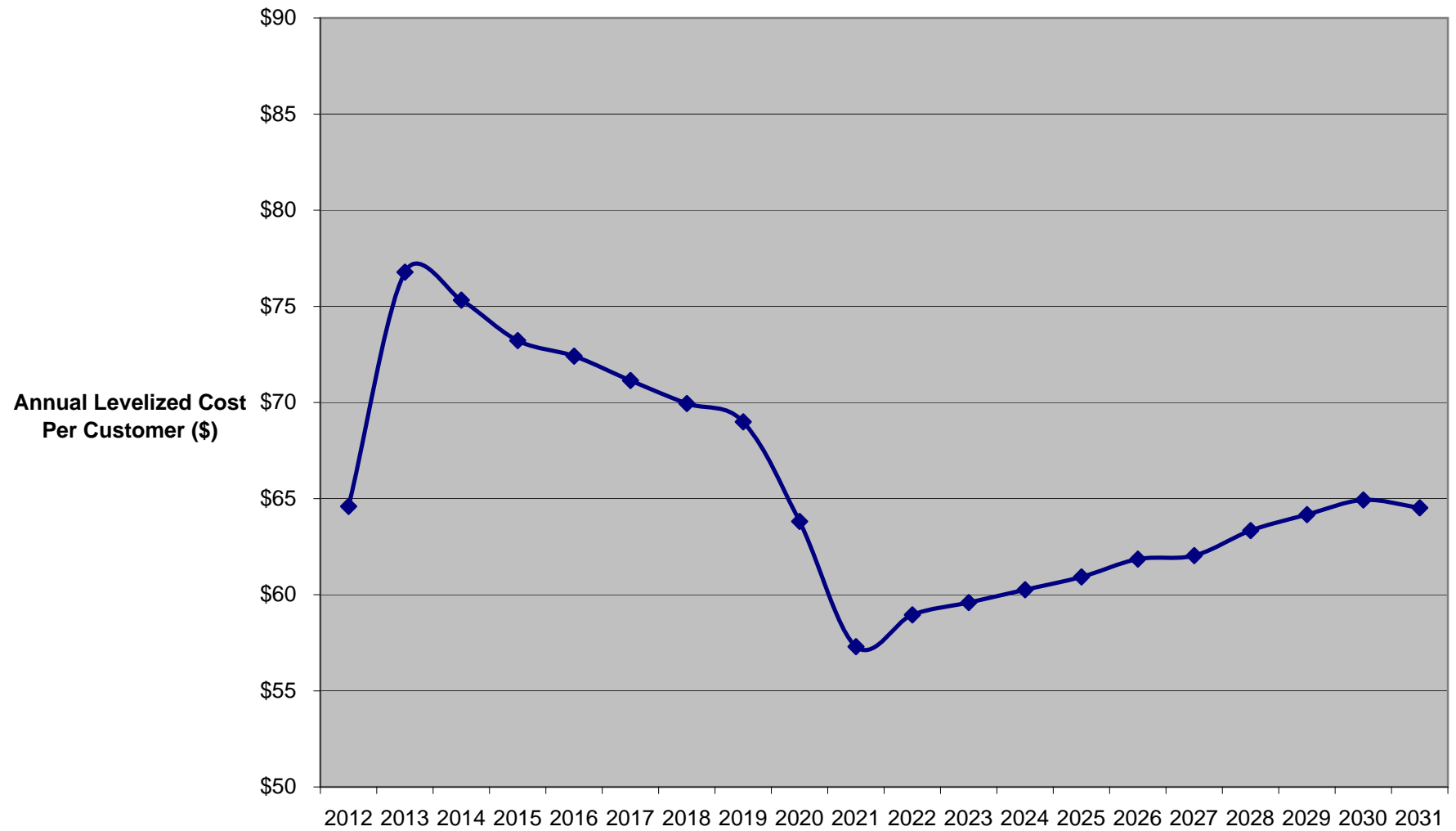
Financial Schedule 7  
Customer Care Enhancement Project- Revised October 2, 2009 Consolidated  
Cost Per Customer Analysis

Reference		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
1	Consolidated																							
2																								
3	Customer Care Costs (\$000's)																							
4	CCE Customer Care O&M	S2, line 6	-	-	44,534	45,835	47,369	48,954	50,601	51,849	52,929	54,629	55,910	57,084	58,574	60,085	61,610	63,199	65,108	66,609	68,364	70,144	71,971	73,810
5	CCE other Cost of Service	line 17 + 28 +40	-	3,807	16,263	27,382	25,168	23,302	21,544	19,703	18,084	16,077	10,109	2,766	3,592	3,358	3,165	2,930	2,680	2,046	2,411	2,269	2,026	450
6	TGVl Banner to Energy Conversion	line 29	1,367	1,290	1,202	1,132	1,061	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	Total Customer Care Costs		1,367	5,096	61,999	74,350	73,598	72,268	72,145	71,552	71,014	70,706	66,019	59,850	62,165	63,443	64,775	66,129	67,787	68,655	70,775	72,412	73,997	74,260
8																								
9	Average Customers		943,278	951,379	959,757	968,338	977,113	987,030	996,311	1,005,709	1,015,228	1,024,868	1,034,633	1,044,524	1,054,543	1,064,694	1,074,979	1,085,399	1,095,957	1,106,657	1,117,500	1,128,490	1,139,628	1,150,918
10																								
11	Cost Per Customer		\$ 1.45	\$ 5.36	\$ 64.60	\$ 76.78	\$ 75.32	\$ 73.22	\$ 72.41	\$ 71.15	\$ 69.95	\$ 68.99	\$ 63.81	\$ 57.30	\$ 58.95	\$ 59.59	\$ 60.26	\$ 60.93	\$ 61.85	\$ 62.04	\$ 63.33	\$ 64.17	\$ 64.93	\$ 64.52
12																								
13																								
14																								
15	Notes:																							
16	Other Cost of Service amounts equal to total cost of service as shown on subsequent Revenue Requirement schedule (S5) less O&M (net of CCE customer care and avoided costs)																							
17																								
18																								
19	Levelized Cost Per Customer Calculation																							
20				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
21	Discount Rate (TGI) (Nominal After Tax WACC)			6.50%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	
22																								
23	Average Customers			959,757	968,338	977,113	987,030	996,311	1,005,709	1,015,228	1,024,868	1,034,633	1,044,524	1,054,543	1,064,694	1,074,979	1,085,399	1,095,957	1,106,657	1,117,500	1,128,490	1,139,628	1,150,918	
24	Discounted Average Customers			901,183	852,404	806,998	764,835	724,339	686,007	649,724	615,379	582,868	552,092	522,959	495,378	469,268	444,550	421,147	398,991	378,013	358,151	339,344	321,537	
25																								
26	CCE Total Customer Care Costs	line 7 x 1000	61,998,592	74,349,809	73,598,183	72,268,227	72,144,995	71,552,158	71,013,714	70,705,630	66,019,498	59,849,839	62,165,457	63,443,176	64,775,098	66,128,527	67,787,237	68,655,008	70,775,230	72,412,325	73,996,610	74,260,284		
27	Discount Rate	S6, line 29	6.50%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	
28	Discounted Costs		58,214,867	65,448,328	60,784,821	55,999,584	52,450,901	48,806,631	45,447,256	42,454,995	37,192,584	31,634,173	30,828,470	29,518,692	28,276,758	27,084,432	26,048,827	24,752,656	23,940,886	22,981,627	22,033,803	20,746,440		
29	Annual Levelized Cost Per Customer		\$ 64.60	\$ 76.78	\$ 75.32	\$ 73.22	\$ 72.41	\$ 71.15	\$ 69.95	\$ 68.99	\$ 63.81	\$ 57.30	\$ 58.95	\$ 59.59	\$ 60.26	\$ 60.93	\$ 61.85	\$ 62.04	\$ 63.33	\$ 64.17	\$ 64.93	\$ 64.52		
30																								
31																								
32	Levelized Cost per Customer- CCE CPCN		754,646,732	Costs																				
33			11,285,168	Customers																				
34			\$ 66.87	Cost/Customer (\$)																				
35																								
36																								
37	Existing Customer Care Contract		64,097,777	66,635,962	67,811,900	67,029,852	68,376,757	69,766,031	70,965,666	72,789,021	74,194,145	75,063,033	76,714,241	78,385,888	80,081,489	81,846,735	83,942,334	85,639,182	87,600,751	89,601,928	91,667,270	93,765,601		
38	Discount Rate	S6, line 29	6.50%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	6.58%	
39	Discounted Costs		60,185,941	58,658,016	56,005,923	51,940,444	49,711,314	47,588,291	45,416,506	43,705,960	41,797,834	39,675,243	38,043,357	36,471,202	34,958,572	33,522,180	32,256,800	30,876,076	29,632,396	28,437,122	27,295,555	26,195,731		
40	Annual Levelized Cost Per Customer		\$ 66.79	\$ 68.81	\$ 69.40	\$ 67.91	\$ 68.63	\$ 69.37	\$ 69.90	\$ 71.02	\$ 71.71	\$ 71.86	\$ 72.75	\$ 73.62	\$ 74.50	\$ 75.41	\$ 76.59	\$ 77.39	\$ 78.39	\$ 79.40	\$ 80.44	\$ 81.47		
41																								
42																								
43	Levelized Cost per Customer- Existing Contract		812,374,461	Costs																				
44			11,285,168	Customers																				
45			\$ 71.99	Cost/Customer (\$)																				
46																								



# Customer Care Enhancement Project

## Annual Levelized Cost of Service Per Customer



**Attachment 129.1**

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**Customer Care Enhancement Project**  
Calculation of Capital Spending AFUDC  
(\$000's)

Particulars	2009	2010	2011	2012	Notes
(1)	(2)	(3)	(4)	(5)	(6)
1 AFUDC Rates					
2 TGI		5.5%	6.1%	6.4%	
3 TGVl		6.0%	6.6%	6.9%	
4 TGW		5.9%	6.6%	6.8%	
5					
6 Allocation					
7 TGI		89.3%	89.1%	89.0%	
8 TGVl		10.4%	10.6%	10.8%	
9 TGW		0.3%	0.3%	0.3%	
10					
11 CIS Capital Spending					
12 CIS Software	431	4,738	908	-	
13 CIS Implementation & Maintenance	431	17,558	26,528	5,695	
14	862	22,296	27,436	5,695	
15 Service Insourcing Capital Spending					
16 CIS Implementation & Maintenance	163	3,588	3,810	412	Related to service insourcing for AFUDC purposes
17 Call Centre	563	3,380	27,236	2,062	
18 Billing & Back Office Operations	257	134	8,557	2,028	
19 Less: Capital Lease	(50)	(104)	(6,523)	-	Capital Lease embedded in table 6.1, AFUDC not applicable
20	933	6,998	33,080	4,502	
21					
22 Deferred O&M Expense		77	10,001		
23					
24 <u>TGI AFUDC</u>					
25 Work in Progress Opening Balance CIS		769	21,273	47,782	2010 Opening = column (2), row 14 x column (3), row 7
26 Additions CIS	19,910	24,456	5,067	-	Row 14 x row 7
27 AFUDC CIS	594	2,053	-	-	Opening Balance + 1/2 Additions x row 2
28 In-service CIS	-	-	(52,849)	-	
29 Work in Progress Closing Balance CIS	21,273	47,782	-	-	
30					
31 Work in Progress Opening Balance SI	833	7,301	-	-	2010 Opening = column (2), row 19 x column (3), row 7
32 Additions SI	6,249	29,487	4,006	-	Row 19 x row 7
33 AFUDC SI	219	-	-	-	Opening Balance + 1/2 Additions x row 2
34 In-service SI	-	(36,788)	(4,006)	-	
35 Work in Progress Closing Balance SI	7,301	-	-	-	
36					
37 Deferred O&M Opening Balance	-	70	-	-	
38 Deferred O&M Addition	68	8,914	-	-	Row 22 x row 7
39 Deferred O&M AFUDC	2	277	-	-	Opening Balance + 1/2 Additions x row 2
40 Deferred O&M Closing Balance	70	9,262	-	-	
41					
42 <u>TGVl AFUDC</u>					
43 Work in Progress Opening Balance CIS	90	2,492	5,660	-	2010 Opening = column (2), row 14 x column (3), row 8
44 Additions CIS	2,327	2,907	613	-	Row 14 x row 8
45 AFUDC CIS	75	261	-	-	Opening Balance + 1/2 Additions x row 3
46 In-service CIS	-	-	(6,273)	-	
47 Work in Progress Closing Balance CIS	2,492	5,660	-	-	
48					
49 Work in Progress Opening Balance SI	97	855	-	-	2010 Opening = column (2), row 19 x column (3), row 8
50 Additions SI	730	3,505	484	-	Row 19 x row 8
51 AFUDC SI	28	-	-	-	Opening Balance + 1/2 Additions x row 3
52 In-service SI	-	(4,360)	(484)	-	
53 Work in Progress Closing Balance SI	855	-	-	-	
54					
55 Deferred O&M Opening Balance	-	8	-	-	
56 Deferred O&M Addition	8	1,060	-	-	Row 22 x row 8
57 Deferred O&M AFUDC	0	36	-	-	Opening Balance + 1/2 Additions x row 3
58 Deferred O&M Closing Balance	8	1,104	-	-	
59					
60 <u>TGW AFUDC</u>					
61 Work in Progress Opening Balance CIS	2	63	143	-	2010 Opening = column (2), row 14 x column (3), row 9
62 Additions CIS	59	73	15	-	Row 14 x row 9
63 AFUDC CIS	2	7	-	-	Opening Balance + 1/2 Additions x row 4
64 In-service CIS	-	-	(158)	-	
65 Work in Progress Closing Balance CIS	63	143	-	-	
66					
67 Work in Progress Opening Balance SI	2	21	-	-	2010 Opening = column (2), row 19 x column (3), row 9
68 Additions SI	19	88	12	-	Row 19 x row 9
69 AFUDC SI	1	-	-	-	Opening Balance + 1/2 Additions x row 4
70 In-service SI	-	(110)	(12)	-	
71 Work in Progress Closing Balance SI	21	-	-	-	
72					
73 Deferred O&M Opening Balance	-	0	-	-	
74 Deferred O&M Addition	0	27	-	-	Row 22 x row 9
75 Deferred O&M AFUDC	0	1	-	-	Opening Balance + 1/2 Additions x row 4
76 Deferred O&M Closing Balance	0	28	-	-	
77					
78 Annual Capital AFUDC	918	2,321	-	-	
79 Annual Deferred O&M AFUDC	2	314	-	-	
80					
81 Total AFUDC			3,556		Slight difference due to rounding of figures in Table 6.1

**Attachment 143.2**

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# **Banner to Energy Conversion- Revenue Requirement Impact**

TGVI Revenue Requirement Impact (\$000's)

Energy  
Depreciation Rate 12.5%

	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
<u>Plant- Energy Conversion</u>										
Opening Balance	-	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086
Additions	6,086	-	-	-	-	-	-	-	-	-
Retirements	-	-	-	-	-	-	-	-	-	(6,086)
Closing Balance	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	6,086	-
<u>Accumulated Depreciation- Energy Conversion</u>										
Opening Balance	-	-	(761)	(1,521)	(2,282)	(3,043)	(3,804)	(4,564)	(5,325)	(6,086)
Depreciation Expense	-	(761)	(761)	(761)	(761)	(761)	(761)	(761)	(761)	-
Retirements	-	-	-	-	-	-	-	-	-	6,086
Closing Balance	-	(761)	(1,521)	(2,282)	(3,043)	(3,804)	(4,564)	(5,325)	(6,086)	-
<b>Mid Year Rate Base- Energy</b>	3,043	5,705	4,945	4,184	3,423	2,663	1,902	1,141	380	-
Return on Ratebase	6.75%	6.74%	7.36%	7.40%	6.93%	7.69%	7.92%	8.00%	8.00%	8.00%
Earned Return	205	385	364	310	237	205	151	91	30	-
<u>CCA</u>										
CCA Rate	100%									
Opening Balance	-	3,043	-	-	-	-	-	-	-	-
Additions	6,086	-	-	-	-	-	-	-	-	-
CCA	(3,043)	(3,043)	-	-	-	-	-	-	-	-
Closing Balance	3,043	-	-	-	-	-	-	-	-	-
<u>Tax Expense</u>										
ROE	9.50%	9.07%	9.32%	9.17%	9.17%	9.17%	9.17%	9.17%	9.17%	9.17%
Equity Thickness	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%
Tax Rate	34.12%	33.00%	31.00%	30.00%	28.50%	26.50%	25.00%	25.00%	25.00%	25.00%
Equity Earned Return	116	207	184	153	126	98	70	42	14	-
Add: Depreciation Expense	-	761	761	761	761	761	761	761	761	-
Less: CCA	(3,043)	(3,043)	-	-	-	-	-	-	-	-
Taxable Income After Tax	(2,927)	(2,075)	945	914	886	858	830	803	775	-
Taxable Income	(4,443)	(3,097)	1,370	1,306	1,240	1,168	1,107	1,070	1,033	-
Current Income Tax Rate	34.12%	33.00%	31.00%	30.00%	28.50%	26.50%	25.00%	25.00%	25.00%	25.00%
Income Tax Expense	(1,516)	(1,022)	425	392	353	309	277	268	258	-
<u>Cost of Service Impact</u>										
Depreciation Expense	-	761	761	761	761	761	761	761	761	-
Property Tax	-	-	(13)	1	15	15	14	13	12	11
Tax Expense	(1,516)	(1,022)	425	392	353	309	277	268	258	-
Earned Return	205	385	364	310	237	205	151	91	30	-
<b>Revenue Requirement</b>	<b>(1,311)</b>	<b>123</b>	<b>1,536</b>	<b>1,463</b>	<b>1,367</b>	<b>1,290</b>	<b>1,202</b>	<b>1,132</b>	<b>1,061</b>	<b>11</b>

# Banner to Energy Conversion- Benefit Analysis

Note: Model used to evaluate project in 2005 was used to provide updated benefit analysis

## Summary Financial Analysis v54

10 Year Evaluation as Filed

2005.06.16

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
<b>Revenue Requirements</b>										
Retain Banner	\$ 5,115	\$ 5,356	\$ 5,648	\$ 5,865	\$ 5,981	\$ 6,231	\$ 6,473	\$ 6,687	\$ 6,943	\$ 7,108
Conversion to Energy	\$ 3,281	\$ 6,078	\$ 6,175	\$ 6,274	\$ 6,396	\$ 6,520	\$ 6,636	\$ 6,750	\$ 5,703	\$ 5,899
Savings (Cost) to Convert	\$ 1,834	\$ (722)	\$ (527)	\$ (409)	\$ (414)	\$ (289)	\$ (163)	\$ (63)	\$ 1,240	\$ 1,210
<b>PV each year</b>	<b>1,728</b>	<b>1,087</b>	<b>645</b>	<b>323</b>	<b>15</b>	<b>(188)</b>	<b>(296)</b>	<b>(335)</b>	<b>393</b>	<b>1,062</b>
<b>Average Customers</b>	87,677	90,643	93,504	96,186	98,973	101,939	104,800	107,482	110,109	112,731
<b>Revenue Requirement Per Customer</b>										
Retain Banner	\$ 58.33	\$ 59.09	\$ 60.40	\$ 60.98	\$ 60.43	\$ 61.12	\$ 61.76	\$ 62.22	\$ 63.06	\$ 63.06
Conversion to Energy	\$ 37.42	\$ 67.05	\$ 66.04	\$ 65.23	\$ 64.62	\$ 63.95	\$ 63.32	\$ 62.80	\$ 51.80	\$ 52.33
<b>Savings/(Cost) per Customer</b>	\$ 20.91	\$ (7.97)	\$ (5.64)	\$ (4.25)	\$ (4.19)	\$ (2.83)	\$ (1.56)	\$ (0.59)	\$ 11.26	\$ 10.73
<b>Levelized Savings per Customer</b>	\$ 1.26	\$ 1.26	\$ 1.26	\$ 1.26	\$ 1.26	\$ 1.26	\$ 1.26	\$ 1.26	\$ 1.26	\$ 1.26

10 Year Restated based on Actual

2009.09.29

Note: Updated costs, debt/equity/tax rates, average customers

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
<b>Updated Revenue Requirements</b>										
Retain Banner	\$ 5,111	\$ 5,355	\$ 5,657	\$ 5,876	\$ 5,993	\$ 6,243	\$ 6,477	\$ 6,689	\$ 6,943	\$ 7,112
Conversion to Energy	\$ 4,165	\$ 6,206	\$ 6,209	\$ 6,288	\$ 6,373	\$ 6,459	\$ 6,542	\$ 6,645	\$ 5,703	\$ 5,899
Savings (Cost) to Convert	\$ 946	\$ (852)	\$ (552)	\$ (412)	\$ (380)	\$ (216)	\$ (65)	\$ 44	\$ 1,240	\$ 1,213
<b>PV each year</b>	<b>897</b>	<b>132</b>	<b>(339)</b>	<b>(672)</b>	<b>(962)</b>	<b>(1,119)</b>	<b>(1,164)</b>	<b>(1,135)</b>	<b>(368)</b>	<b>343</b>
<b>Updated Average Customers</b>	86,026	89,704	93,570	96,969	99,718	102,143	104,584	107,091	109,669	112,335
<b>Updated Revenue Requirement Per Customer</b>										
Retain Banner	\$ 59.42	\$ 59.69	\$ 60.45	\$ 60.60	\$ 60.10	\$ 61.12	\$ 61.93	\$ 62.46	\$ 63.31	\$ 63.31
Conversion to Energy	\$ 48.42	\$ 69.19	\$ 66.36	\$ 64.84	\$ 63.91	\$ 63.24	\$ 62.56	\$ 62.05	\$ 52.00	\$ 52.51
<b>Updated Savings/(Cost) per Customer</b>	\$ 11.00	\$ (9.50)	\$ (5.90)	\$ (4.25)	\$ (3.81)	\$ (2.12)	\$ (0.62)	\$ 0.41	\$ 11.31	\$ 10.80
<b>Updated Levelized Savings per Customer</b>	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00
<b>Levelized Savings per Customer CCE Project</b>							\$ 5.12	\$ 5.12	\$ 5.12	\$ 5.12
<b>Net Levelized Savings per Customer</b>	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 5.12	\$ 5.12	\$ 5.12	\$ 5.12