ATCO Electric YUKON

September 28, 2023 AEY-UCG-081

ATCO Electric Yukon (AEY)
2023-2024 General Rate Application (GRA)

Information Responses Round 1 to:
The Yukon Utilities Consumers' Group (UCG)
Received: September 6, 2023

AEY-UCG-081

Reference: My Account for Online Customer Access, BC#19; Cost $265,622 & On-Going forecasted O&M Fees of $5,458.

Request:

(a) Provide tenders for this contract and explain why it was awarded to Global IT group.

(b) Are the Forecasted O&M fees $5.458 thousand or $5.558 million? Explain

(c) Produce cost/benefit analysis demonstrating costs for online customer portal vs. in-person manual services.

(d) Were these costs already added to the rate base? If yes, when and under what authority?

Response:

(a) The contract was not awarded to Global IT, it was awarded to WIPRO. The project was awarded to WIPRO as it was AEY's IT service provider at the time and this project was an extension of a current functionality and not a new software purchase.

(b) The costs are $5,458. These are the monthly O&M fees for the system. A breakdown of the costs is provided in the Business Case and included in Table 1 below.

Table 1: Forecast Monthly O&M Fees
($)

Ongoing Fees	**Cost**
AMS Projected Monthly Cost (Silver)	2,320
DR Service (Annual Cost of $2,137)	178
Oracle Cloud Hosting Fees	2,960
Total Ongoing Fees Estimate	**5,458**

(c) A formal cost/ benefit analysis was not completed as cost was not the main driver of the project. The main driver was allowing customers to access their account and pay bills online, a feature that is considered a necessity in a digital society. In addition, the project allows AEY staff to spend less time processing manual payment transactions and focus instead on more value-added tasks.

(d) Please refer to the response to AEY-UCG-065(b).

ATCO Electric YUKON

September 28, 2023 AEY-UCG-082

ATCO Electric Yukon (AEY)
2023-2024 General Rate Application (GRA)

Information Responses Round 1 to:
The Yukon Utilities Consumers' Group (UCG)
Received: September 6, 2023

AEY-UCG-082

Reference: Streetlights Hart Crescent, BC#20; Cost $180,176 completed 2021

Request:

(a) Has the long-term streetlight rebuild plan been okayed by YUB? Give references.

(b) Was this project tendered or done in-house? Provide details of tender is such.

(c) Was this cost already added to the rate base? If yes, when and under what authority?

Response:

(a) The long-term streetlight rebuild plan is not submitted for approval as an overall plan but is broken into smaller projects, each of which are submitted to the Board for prudency review as required through a GRA.

(b) Both the electrical ($17,000) and civil construction labour ($109,000) were completed by AEY sub-contractors under Master Service Agreements that are signed annually by AEY's approved contractors.

(c) Please refer to the response to AEY-UCG-065(b).

ATCO Electric YUKON

September 28, 2023 AEY-UCG-083

ATCO Electric Yukon (AEY)
2023-2024 General Rate Application (GRA)

Information Responses Round 1 to:
The Yukon Utilities Consumers' Group (UCG)
Received: September 6, 2023

AEY-UCG-083

Reference: Swift River Unit 2 Replacement (CUL 544), BC21; Cost $226,589 Completed 2022

Request:

(a) Provide tenders for this unit.

(b) Was this cost already added to the rate base? If yes, when and under what authority?

(c) Provide who salvaged the replaced unit and what ATCO was paid for this.

Response:

(a) The genset was supplied by Frontier Power Solutions, as a match to the existing Swift River Unit 2 manufacturer and model. The rationale for this sole source purchase (<$50,000) was to ensure consistency of parts, familiarity of operation, and simplicity of integration with existing control and monitoring equipment.

Due to changes in Off Road Compression Ignition Engine Emissions Regulations, this unit required EPA Tier 3 compliance. This necessitated additional infrastructure including a charge air cooler, piping, ducting, and radiator along with circulation pump and additional motor wiring and control. The installation of this unit was completed by contractors; the tender for the mechanical portion of the scope was unsuccessful in attracting competitive bids and the electrical/instrumentation portion of the scope was done under the Master Services Agreement.

Prior replacements in Swift River were solely genset replacements, that repurposed the existing piping and cooling systems. The cost breakdown of actuals on this project is as follows:

Table 1: Swift River Unit 2 Replacement Project ($000)

Project Management and Design and Construction Supervision (internal)	21
Material Supply (genset, bulk)	52
Mechanical Installation	79
Electrical Installation	62
Commissioning	12
Total	**226**

(b) Please refer to the response to AEY-UCG-065(b).

(c) AEY is still in possession of CUL 544.

September 28, 2023 AEY-UCG-084

ATCO Electric Yukon (AEY)
2023-2024 General Rate Application (GRA)

Information Responses Round 1 to:
The Yukon Utilities Consumers' Group (UCG)
Received: September 6, 2023

AEY-UCG-084

Reference: ATCO CIS Replacement, BC#22; Cost $8.403 million plus additional O&M cost of $235,000 for 2023 and $415,000 for 2024.

Request:

(a) Does not the main office of ATCO Utilities handle billing? At what cost?

(b) Provide business risk report identified in #5 p. 1 and 2.

(c) Provide original engineering qualifications of what work was to be done and what were the economic analyses identifying the business drivers and cost/benefits, including the preliminary engineering estimate of costs. Provide engineers report.

(d) Provide tender procurement process with tenders and amounts.

(e) Provide a cost/benefit analysis of the costs of this replacement with efficiencies generated.

Response:

(a) No, the main office of ATCO Utilities does not handle billing. Customer billing services are provided at AEY's main office in the Yukon.

(b) Please refer to AEY-UCG-084(b) Attachment 1. For context, ATCO CIS is an ATCO-owned, in-house developed, custom built, application that handles utility Customer Care and Billing processes for both the Alberta and North of 60 distribution utilities. The report identifies the business risks and assessment of the legacy CIS system for the Alberta utilities; however, it extends to the North of 60 as it is the same system. Furthermore, AEY notes that the Alberta Utilities Commission approved the replacement of CIS in Decision 26616-D01-2022,

specifically para. 254: “The Commission is satisfied that, given the risk of the continued use and operation of the existing ATCO Distribution Utilities’ CIS, the need for replacement is warranted.”

(c-e) Please refer to AEY-UCG-084(c-e) Attachment 1 for a scorecard summary of various tenders and evaluation categories. Please refer to AEY-YUB-067(f) Attachment 1 for the annual revenue requirement and cumulative revenue requirement for each of the explored scenarios over 20-years.

Efficiencies generated by the implementation of Oracle CCS include leveraging economies of scale across ATCO’s Alberta based Distribution Utilities through the application of a common business support team for Oracle CCS. Further, the Oracle CCS product benefited from technical compatibility and ease of integration to the existing North of 60 technical environment.

ATCO always there. anywhere.

TMG's Assessment of ATCO's Current CIS

Presentation of Results

December 9, 2019





TMG Consulting
Where Business and Technology Intersect

Introduction and Presentation Outline

- This assessment was conducted for the ATCO Group by TMG Consulting, Inc. as part of our Strategic Application Roadmap offering. The objective of this assessment was:
  - For TMG to evaluate the current ATCO legacy CIS from both a Gas and Electric perspective and determine if the application should be retained or replaced.
  - If the decision was to replace, TMG conducted a second exercise to identify and analyze alternative replacement scenarios in order to identify an optimum scenario for ATCO to consider.
- This presentation has been structured in the following sections to facilitate your review.
  1. Interview Results
  2. Current CIS Assessment
  3. Alternative Scenarios
  4. Evaluation Criteria
  5. Detailed Evaluation Results
  6. Summary Scoring
  7. Recommendations
  8. Closing

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Your Experienced TMG Team

- An experienced team of TMG consultants with extensive experience in the evaluation of CIS solutions was assigned to this project.



PAM GLANVILLE
PRESIDENT

Pam is the President and an owner of TMG. She joined TMG after a long and successful career guiding and implementing mission critical applications. She has worked in the IT industry in South Africa and the United States for thirty years, specifically focusing on the utility and revenue verticals for the last eighteen years. Among other various positions within SPL World Group and Oracle, she was the VP of Delivery, responsible for leading and growing the CC&B product as well as the implementation services. She then became the President of Origin Consulting in 2011 and was responsible for growing that company into a successful consulting firm. At TMG, Pam is responsible for our Client-Side Delivery Support services. Her role included overall responsibility for the project. Contact Pam at pam.Glanville@tmgconsulting.com or 973-727-8732.



GREG GALLUZZI
EXECUTIVE VP

Greg founded TMG in 1992 and is considered to be an expert in the CIS area with experience working on over 200 CIS utility industry projects at over 130 client sites. Today, he remains an owner and is an Executive Vice President. Greg has 39 years of CIS/Utility experience, and has participated in the majority of TMG's 400-plus projects, (CIS planning (40), studies (15), assessments (20), procurements (90), implementations (50), and expert witness testimony (5)). Recent projects include: EPCOR contracting, ATCO alternative assessment, default supply provider outsourcing assessment, and system integrator procurement, National Grid planning and procurement, AES requirements, financial model and procurement, SFPUC application plan, NWN application plan, and SWG application plan. Greg is responsible for maintaining TMG's project metric and pricing database, he is responsible for TMG's strategic application roadmap methodology and templates/ accelerators. He also provides assistance to consultants working on many other TMG projects regarding adherence to project methodology/accelerators, pricing, contracting, etc.. Contact Greg at: greg.galluzzi@tmgconsulting.com or 512-757-1156.

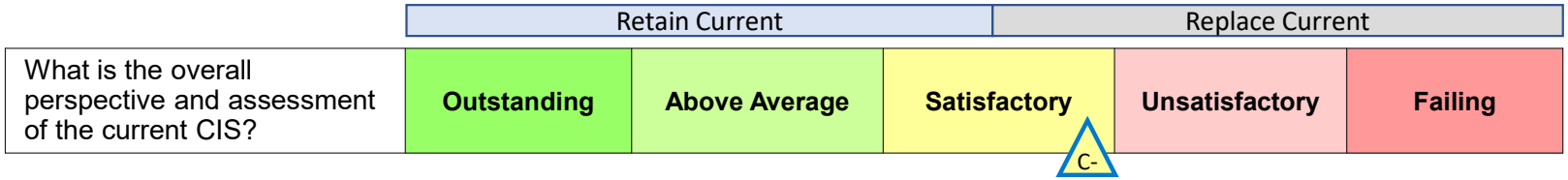
1. Interview Results



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Interview Assessment

- As a part of the information gathering process, individuals from ATCO who are involved with the current CIS were interviewed. TMG reviewed these interview results and based on our experience a grade of "C" or Low Satisfactory, was assigned.



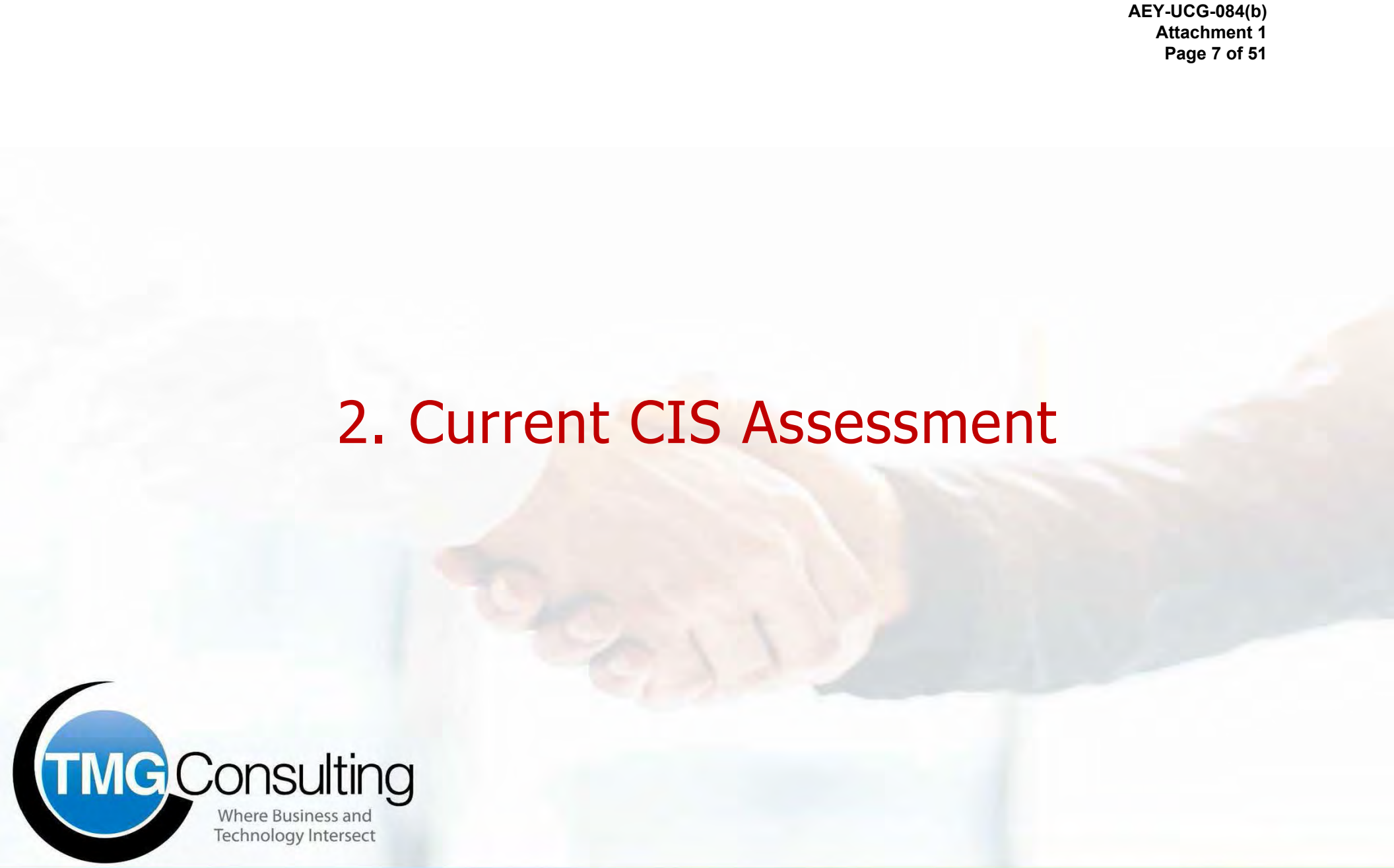
- This grade indicates that the people who manage, use, and support the current system on a daily basis, believe it should be REPLACED.
- Several main themes were observed, including:

1. There is a support issue as there are only five application support personnel that understand the system and can code, they are close to retirement or have other opportunities to go to. We estimate it takes 6 years to train a new support person.
2. It is an old system written in COBOL with a DB2 database, this makes it difficult to recruit, hire, and train new support personnel (colleges no longer teach this language).
3. Changes to the system are time consuming, costly, and risky. It takes time for a change to be made, the change is very costly (could be $100k to $1m), and sometimes when it is delivered it breaks other things in the system which introduces a level of risk to the business.
4. The code is old and poorly structured, integration work through API's and extensions are difficult, this all makes any changes to the system complicated.
5. The business no longer asks for new enhancements because they cost to much and take to much time.

Interview Assessment

6. Changes requested by our regulator are getting more difficult and costly to implement, the last one took 8 months and cost over $1m.
7. Anything new is typically implemented in another system (edge system), and then attempted to be integrated to the current CIS.
8. Any changes to existing reports or requests for new reports have to be developed by that same small group of developers (a report change can cost $30k and take 6 wks). There is no analytics engine to assist all aspects of the business in serving customers, regulators, managers, and executives.
9. It is primarily a billing engine with a focus on the meter and account, and it does a good job of supporting the core business functions.
10. It does not focus on the customer and providing exceptional levels of service to that customer. This will inhibit future customer driven initiatives regarding movement toward becoming a digital utility and customer transformation utilizing newer technologies and communication channels.
11. It does not support the company's growth strategy through acquisition. It would be difficult to use the current system to onboard new customers and provide service and support.
12. It does not easily support future company revenue streams through new complex rates, or offering of new products, programs, or services.
13. The current system has a poor user interface and is difficult to navigate and understand and has limited documentation and no help. It takes time to teach new users how the system works and make them proficient in their job. This is important as the business is losing people and they are taking this application knowledge with them.
14. The current system is an aging platform and has a declining resource pool for support. Changes are timely, costly, and risky. If the company stays with the current system these issues will only grow worse and can jeopardize our revenue stream (accounts for 90% of the revenue stream) and service to our customers.

2. Current CIS Assessment



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TMG Assessment of ATCO Gas from a Business Perspective

- The current CIS was evaluated by TMG n terms of how it supports the ATCO Gas business across 15 primary business considerations and 115 secondary business considerations. The following tables summarize this analysis, and TMG assigned an overall business grade of "D" or unsatisfactory.

Business Consideration	Grade
Strategy ▪ Meets corporate business and customer strategy	D
Objectives ▪ Meets customer based service objectives	D
Scope of Services ▪ Accommodates services e.g. gas, electric, water	C
Scope of Products ▪ Accommodates various product offerings	F
Scope of Programs ▪ Accommodates various programs e.g. budget billing	C
Organization and Staffing ▪ Addresses organizational and staffing issues	D
Configuration ▪ It is configurable, and users have control	F
Business Processes ▪ Aligned with business process and industry practices	D

Business Consideration	Grade
Data ▪ Data integrity, quality, reporting, analytics	D
Customer Life-Cycle ▪ Support customer services e.g. contact, metering	C
Product Functionality ▪ Provides CIS functional components	C
Product Usability ▪ Nice user interface, easy to navigate and learn	D
Product Workflow ▪ Utilizes a workflow engine, scripts, work queues	D
Product Mechanics ▪ Provides documentation, help, security, audit	C
Product Viewpoint ▪ Viewed by users, tech, exec, board, customers	D
OVERALL BUSINESS GRADE	D

TMG Assessment of ATCO Gas from a Technology Perspective

- The current CIS was evaluated by TMG in terms of how it supports the ATCO Gas business across 10 primary technology considerations and 75 secondary technology considerations. The following tables summarize this analysis, and TMG assigned an overall technology grade of "D" or unsatisfactory.

Business Consideration	Grade
Strategy ▪ Meets corporate technology strategy	D
Infrastructure/Platform ▪ Meets preferred infrastructure components	D
Operational Services ▪ Provides services to operate the CIS platform	C
Security ▪ Provides platform, data, application security	D
Programming Considerations ▪ The language, structured code, documentation	F
Support Services ▪ Help desk, investigation, responsiveness	C

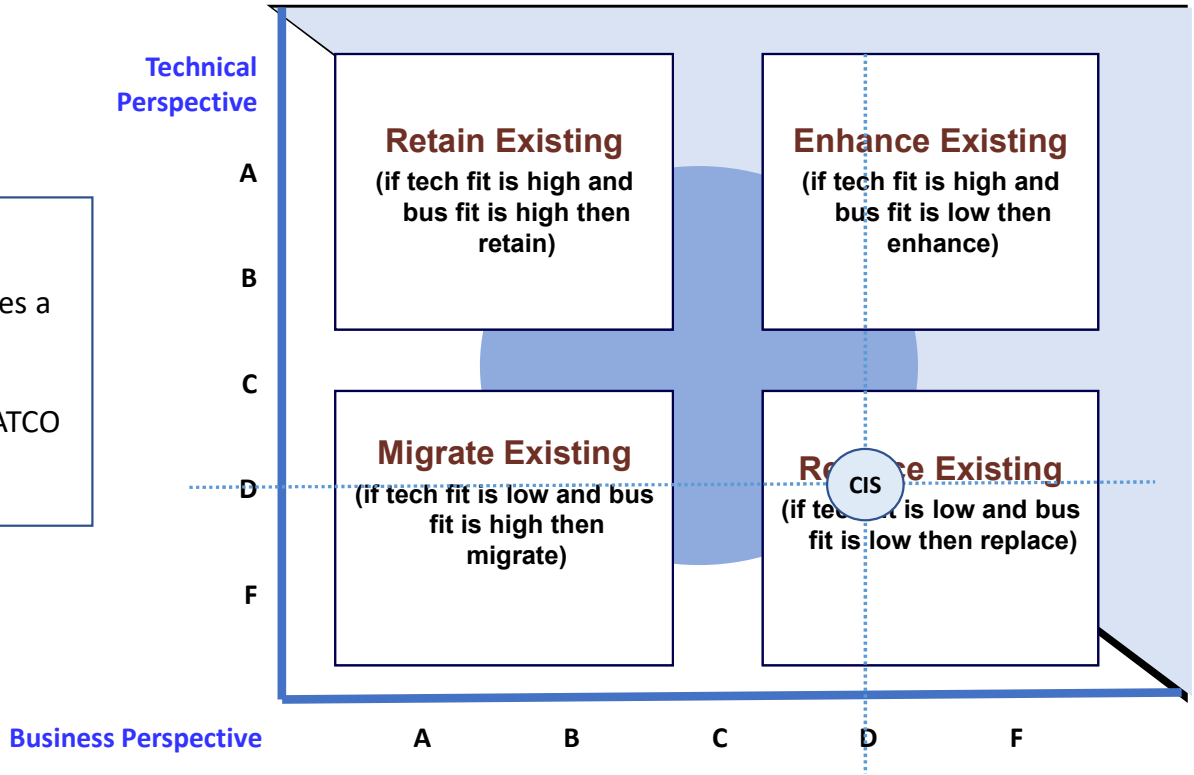
Business Consideration	Grade
Maintenance Services ▪ Corrective, preventive, and emergency work	C
Development Services ▪ Development of small and large projects	C
Product Data Design ▪ Solid data design, retention, integrity, normalized	D
Product Scalability, Availability, Performance ▪ It scales, is available, and performs	C
OVERALL TECHNCIAL GRADE	D

TMG Summary Assessment of ATCO Gas

- The following TMG model examines the assessment of the current CIS from an ATCO Gas business and technical perspective to indicate if the system should be retained, enhanced, migrated, or replaced. TMG has used this model extensively to provide direction in terms of retaining or replacing an existing CIS system.

TMG's analysis indicates the current CIS scores a "D" or Unsatisfactory from a Technical Perspective, and it scores a "D" or Unsatisfactory from a Business Perspective.

Using these two grades the TMG model indicates that ATCO Gas should move toward a strategy of **REPLACE.**



TMG Assessment of ATCO Electric from a Business Perspective

- The current CIS was evaluated by TMG in terms of how it supports the ATCO Electric business across 15 primary business considerations and 115 secondary business considerations. The following tables summarize this analysis, and TMG assigned an overall business grade of "D" or unsatisfactory.

Business Consideration	Grade
Strategy ▪ Meets corporate business and customer strategy	D
Objectives ▪ Meets customer based service objectives	D
Scope of Services ▪ Accommodates services e.g. gas, electric, water	C
Scope of Products ▪ Accommodates various product offerings	F
Scope of Programs ▪ Accommodates various programs e.g. budget billing	C
Organization and Staffing ▪ Addresses organizational and staffing issues	D
Configuration ▪ It is configurable, and users have control	F
Business Processes ▪ Aligned with business process and industry practices	D

Business Consideration	Grade
Data ▪ Data integrity, quality, reporting, analytics	D
Customer Life-Cycle ▪ Support customer services e.g. contact, metering	B
Product Functionality ▪ Provides CIS functional components	C
Product Usability ▪ Nice user interface, easy to navigate and learn	D
Product Workflow ▪ Utilizes a workflow engine, scripts, work queues	D
Product Mechanics ▪ Provides documentation, help, security, audit	C
Product Viewpoint ▪ Viewed by users, tech, exec, board, customers	D
OVERALL BUSINESS GRADE	D

TMG Assessment of ATCO Electric from a Technology Perspective

- The current CIS was evaluated by TMG in terms of how it supports the ATCO Electric business across 10 primary technology considerations and 75 secondary technology considerations. The following tables summarize this analysis, and TMG assigned an overall technology grade of "D" or unsatisfactory.

Business Consideration	Grade
Strategy ▪ Meets corporate technology strategy	D
Infrastructure/Platform ▪ Meets preferred infrastructure components	D
Operational Services ▪ Provides services to operate the CIS platform	C
Security ▪ Provides platform, data, application security	D
Programming Considerations ▪ The language, structured code, documentation	F
Support Services ▪ Help desk, investigation, responsiveness	C

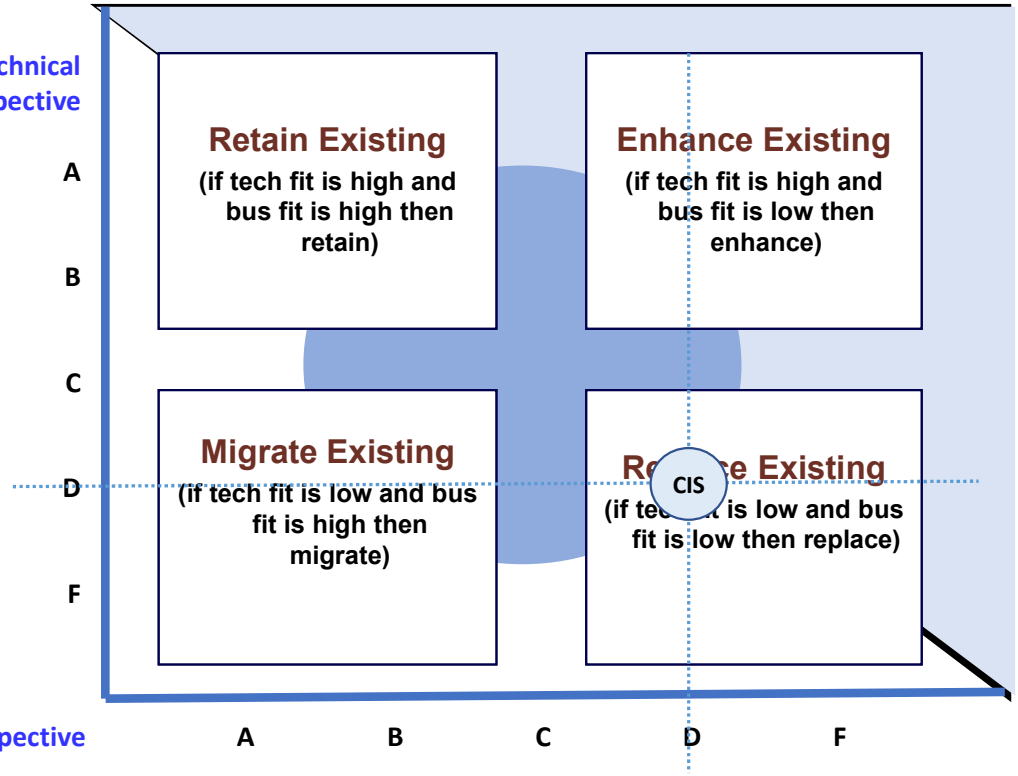
Business Consideration	Grade
Maintenance Services ▪ Corrective, preventive, and emergency work	C
Development Services ▪ Development of small and large projects	C
Product Data Design ▪ Solid data design, retention, integrity, normalized	D
Product Scalability, Availability, Performance ▪ It scales, is available, and performs	C
OVERALL TECHNCIAL GRADE	D

TMG Summary Assessment of ATCO Electric

- The following TMG model examines the assessment of the current CIS from an ATCO Electric business and technical perspective to indicate if the system should be retained, enhanced, migrated, or replaced. TMG has used this model extensively to provide direction in terms of retaining or replacing an existing CIS system.

TMG's analysis indicates the current CIS scores a "D" or Unsatisfactory from a Technical Perspective, and it scores a "D" or Unsatisfactory from a Business Perspective.

Using these two grades the TMG model indicates that ATCO Electric should move toward a strategy of **REPLACE.**



TMG Indicates - Should ATCO Retain or Replace the Current CIS?

Based on this analysis TMG recommends that the current CIS be **REPLACED**. TMG's analysis of the interviews indicated the current system should be replaced, and TMG's assessment of both the business considerations and the technical considerations indicate the current system should be replaced. Based upon TMG's experience and our review of the current CIS, the following items should be viewed as primary drivers for replacement and are inline with what TMG has experienced with similar utilities who have decided to replace their legacy CIS.

1. A strategic and essential foundational initiative in support of company business, technical, and customer based strategies and initiatives.
2. Implementation of newer application technologies and a platform which resolves issues associated with an older legacy billing system e.g. loss of expertise, better integration, improved security, improved reporting and analytics, scalability, etc..
3. Addresses the need for cybersecurity to accommodate operating in a digital environment, and digital customer communication channels with the need to protect critical and important customer information.
4. Replacement of a technical foundation which may adversely impact the company's current and future revenue stream in support of both business operations, and impacts to the customer life-cycle and level of service.
5. A solution which supports staff in providing customers with exceptional levels of service, customer transformation, and applying new technologies and multiple channels of communication and interaction.
6. Provide users with a new and efficient browser based user interface, with new capabilities, documentation, and help. This will enable new users to learn the system quicker and be more effective in meeting job responsibilities and serving customers.
7. The ability to apply regular product releases to provide new customer capabilities in a timely fashion – following a close to zero modification approach. No need for enhancements that take to much time, cost to much, and are risky – those days are over.

3. Alternative Scenarios



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TMG Alternative Scenarios

The following alternative scenarios have been identified by TMG.

- **Scenario 1: Status Quo**

Continue to utilize the existing ATCO CIS solution operated in the existing hosted environment.

- **Scenario 2: Replace and Re-Engineer**

Utilize the existing ATCO CIS solution as the functional baseline for the development of a new system. The logical data/process design is loaded into design software. It is updated and generated into a new coding and technical environment. It will be operated in the current hosted environment.

- **Scenario 3: Replace and Custom Develop**

Purchase a CIS product or design guide or template and develop a custom CIS solution. It will be operated in the current hosted environment.

- **Scenario 4: Replace and Work With Another Utility**

Work with another utility to select and implement a new CIS product solution. It will be operated in a Platform as a Service or PaaS environment with the other utility.

- **Scenario 5: Replace New Product Solution in PaaS Environment**

Select and implement a new CIS product solution, with a perpetual license operating in a Platform as a Service or PaaS environment.

- **Scenario 6: Replace New Product Solution in SaaS Environment**

Select and implement a new CIS product solution, with a subscription license operating in a Software as a Service or SaaS environment.

TMG Option 1 Profile – Status Quo

Scenario 1: Status Quo. Continue to utilize the existing ATCO CIS solution operated in the existing hosted environment.

Positive Considerations	Negative Considerations
1. Since there is no project, there are no implementation dollars, no timeframe, no internal resources required to staff, and no project risk. 2. The solution can scale to accommodate a larger customer base. 3. The current legacy CIS satisfies the basic needs of business users, regulators, customers, etc..	1. This retains the aging legacy CIS solution, this may be viable in the short-term, but at some point it will have to be replaced as it has a cracked technical foundation. 2. Retaining status quo does not usually support corporate strategies, business strategies or technical strategies. 3. This is not a cloud solution, it is a hosted solution which has already been replatformed, and does not adhere to the technical strategy. 4. Does not address issues with technical skilled labor to support the current legacy CIS. 5. Does not address costly and time consuming changes that are required anytime a user wants to make a change or enhance the system. 6. Does not result in any new functionality or capabilities. 7. The current investment in the Oracle CIS could not be used. 8. Operating costs will remain the same while other alternatives typically see costs go down. 9. There are no updates or impacts to the business which would address any existing issues, or provide for an improved levels of customer experience, interaction, or digital communications. 10. The current and future revenue streams remain at risk. Difficult to offer new products, programs and services. 11. The current system is not made to quickly onboard new customers, or add new products, programs, or services. 12. There is no product roadmap, this is an inhouse developed application which started out with a consortium. There are no regular releases.

TMG Option 2 Profile – Replace and Re-Engineer

Scenario 2: Replace and Re-Engineer. Utilize the existing ATCO CIS solution as the functional baseline for the development of a new system. The logical data/process design is loaded into design software. It is updated and generated into a new coding and technical environment. It will be operated in the current hosted environment.

Positive Considerations	Negative Considerations
1. The cost to implement is usually on the low end compared to other alternatives. 2. Usually a shorter time and less resources required to plan, select, implement and stabilize the solution. 3. Changing the application code, may allow for faster and less costly development to accommodate onboarding, or add new products, programs, or services, or implement new functionality. 4. The solution can scale to accommodate a larger customer base.	1. This scenario retains the current aging CIS, it simply is re-engineering it from an application written in Cobol, to one written in a more modern language. So, it may address some of the application and technology issues, but it retains the current data, process, user interface, etc.. 2. Not sure if any true re-engineering software is still available in the market, e.g. knowledgeware, however assume there is software available to just convert code without re-engineering the application. Unaware of utilities that are doing this. 3. There are no updates or impacts to the business which would address any existing issues, or provide for an improved customer experience. However, with a new language enhancements may be conducted quicker and at a lower cost. 4. No significant changes to operational costs 5. While this is a minimal project, there are not a lot of utilities that can be pointed to where large scale legacy CIS applications have been re-engineered (they have been replatformed). 6. The solution does not do anything to support onboarding new customers. 7. The current and future revenue stream remain at risk. 8. It does not do anything to enhance the customer experience, interaction, or digital experience. 9. There is no product roadmap, this is an inhouse developed application which started out with a consortium. There are no regular releases. This is simply re-engineering the same functionality developed with Cobol to a more modern current language. 10. This is not a cloud solution and will continue to be hosted.

TMG Option 3 Profile – Replace and Custom Develop

Scenario 3: Replace and Custom Develop. Purchase a CIS product or design guide or template and develop a custom CIS solution. It will be operated in the current hosted environment.

Positive Considerations	Negative Considerations
1. This scenario will replace the legacy application and provide ATCO with a solution that is specific to the business needs of the organization and the customers. 2. This will enable the system and the business to collect current revenue streams and bill and collect for new revenue streams associated with new products, programs, and services. 3. This will enable an emphasis on the customer life-cycle, with a focus on the customer journey, self-service, and digital communications. 4. Complete design authority to implement new business operations and automation. 5. The solution can scale to accommodate a larger customer base through organic growth and acquisition. 6. A new technical and application solution, with many resources available in the market to work on the application.	1. This replaces the aging legacy CIS solution, however, it is a "one-off" solution and it is up to ATCO to enhance and maintain it. Regular releases would probably occur every 3 -5 years. 2. This is a tremendous risk, and there have been many failures. However, a utility may buy a CIS design guide, or may purchase a CIS product and then possibly discontinue maintenance. In any event, this is a very high risk scenario and not very viable for a number of reasons. 3. Implementation costs can be the most expensive compared to other alternatives. 4. Operational costs can be more expensive that what the utility is currently paying. 5. It results in ATCO continuing to support, develop, maintain, and operate the application. (assume custom development of a new CIS solution will continue to use the existing hosted environment). 6. Why get back into the custom CIS solution like SinglePoint?

TMG Option 4 Profile – Replace and Work With Another Utility

Scenario 4: Replace and Work With Another Utility. Work with another utility to select and implement a new CIS product solution. It may be operated in a Platform as a Service or PaaS environment with the other utility.

Positive Considerations	Negative Considerations
1. Operational costs are usually lower then current legacy application costs. 2. Implementation costs my be slightly lower then other alternatives. 3. This replaces the legacy CIS with a modern CIS product solution which may operate in a PaaS cloud environment. 4. It provides a new technical and application solution, with many resources available in the market to work on the application. 5. Will enable the system and the business to collect current revenue streams and bill and collect for new revenue streams associated with new products, programs, and services. 6. Will enable an emphasis on the customer life-cycle, with a focus on the customer journey, self-service, and digital communications. 7. This replaces the aging legacy CIS solution. ATCO will have to work with the other utility(s) to do upgrades, which may not be according to the ATCO schedule or plan. 8. The solution can scale to accommodate a larger customer base through organic growth or acquisitions.	1. Over the past 40 years there have been may consortiums where utilities have gotten together to design and implement a new CIS, e.g. ATCO SinglePoint. There have also been a number of attempts for utilities to work together to procure and implement a common CIS. The majority of these have failed. This is a very high risk project, which ends up requiring much more time and money and ends up in failure or the utilities go there own way. 2. May not be able to utilize the current Oracle perpetual licenses that were paid for. 3. Business operations may be hindered in some areas as ATCO will have to align with what the other utility(s) want to do, or how they want to adhere to the product roadmap. 4. There my be some issues to consider in working with the consortium to implement new products, programs, and services. Also, to just do enhancements the utility may have to compete with consortium resources.

TMG Option 5 Profile – Replace New Product Solution PaaS

Scenario 5: Replace New Product Solution in PaaS Environment. Select and implement a new CIS product solution, with a perpetual license operating in a Platform as a Service or PaaS environment.

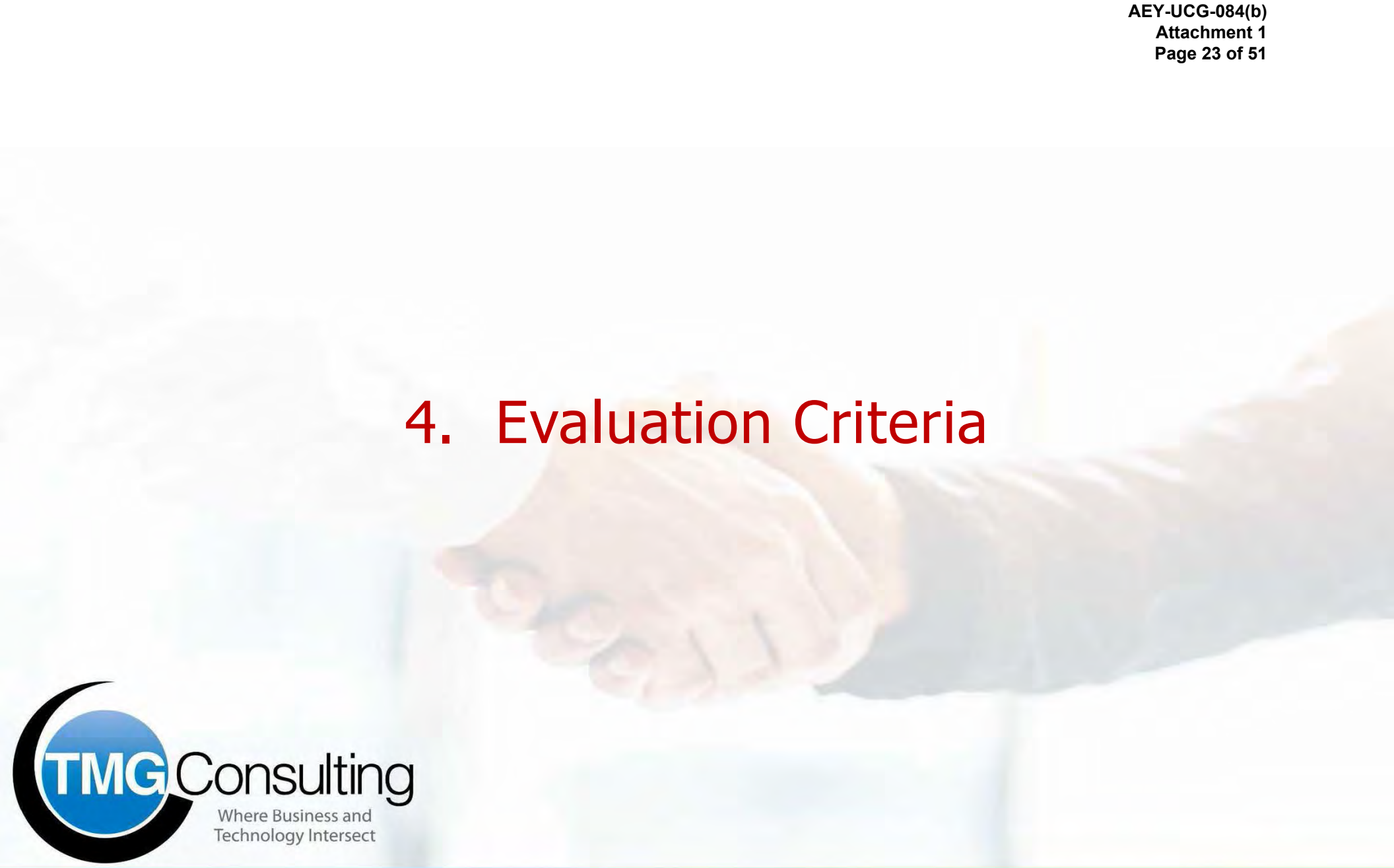
Positive Considerations	Negative Considerations
1. Operational costs are usually less then the costs of the legacy system. 2. This replaces the current legacy CIS with a modern CIS cloud based product. 3. In a PaaS perpetual environment the utility is free to do what it wants to modify and enhance the system to meet specific business and regulatory requirements. 4. The PaaS solution is much like hosting, which many utilities are familiar with. There have been many successful PaaS/Hosted solution that have been implemented . 5. Most large IOUs like ATCO are going with this PaaS model or something they are calling MPaaS, which is Managed Platform as a Service. Both have proven to be successful. 6. A new system will be very flexible to quickly add new products, programs, and services. As a result, both the current and new revenue streams will be recognized. 7. It will enable an emphasis on the customer life-cycle, with a focus on the customer journey, self-service, and digital communications. 8. It can utilize existing Oracle licenses. 9. Onboarding tools can be developed as part of a new CIS. This is a perpetual license, with ATCO able to implement and stay on the CIS Product Roadmap for a CIS product solution. It is up to ATCO if they pursue a SaaS-like solution or do something more specific to ATCO operations. 10. This replaces an aging legacy CIS solution by a industry leading CIS product which alleviates the technology headache and the ability to find resources who can work on the CIS. 11. The solution can scale to accommodate a larger customer base associated with organic growth and acquisitions.	1. Although this is a cloud based PaaS perpetual model it does not meet the technical vision of a true public SaaS subscription solution. 2. This solution comes with a higher price tag compared to other alternatives. 3. Implementation costs are usually middle of the road, PaaS is not the cheapest to implement but also not the most expensive. 4. De[ending on what is negotiated, there may be limited service levels, lack of termination for cause, and the identification of termination services. 5. Release strategies run anywhere from about once a year to once every 3 to 5 years. 6. Ultimately, utilities may move past this model and go with a true SaaS offering. 7. True PaaS does not alleviate the entire technology headache, that is why utilities are also engage managed service firms to provide that technical and application knowledge.

TMG Option 6 Profile – Replace New Product Solution SaaS

Scenario 6: Replace New Product Solution in SaaS Environment. Select and implement a new CIS product solution, with a subscription license operating in a Software as a Service or SaaS environment.

Positive Considerations	Negative Considerations
1. Operational costs are usually lower then the current legacy system. 2. Utilities are slow to adapt, but they will be moving to a SaaS environment in the future like ATCO. 3. This will replace the legacy CIS and will focus on providing new products, programs, and services. There will be no negative impacts to either the existing revenue stream or future revenue streams. 4. Improvements in customer service, self-service, digital communications, etc. can be realized with SaaS. 5. Will utilize existing Oracle perpetual licenses as they become subscription licenses and are built into the subscription fee. 6. New releases with SaaS come on a regular based, e.g. every 2 months, every 3 to 4 months. 7. The SaaS solution can be easily scaled up to accommodate larger customer either through organic growth, or through acquisition. 8. SaaS provides for the technical architecture which surrounds the application, the utility no longer needs to provide this technical staff, and with a new popular CIS architecture there will be many resources available in the market.	1. The public SaaS subscription model has not yet been implemented for a CIS in North America. ATCO will be the first large scale IOU, and other utilities are looking to this project to see how successful it is, both from an implementation and an operation perspective. 2. In SaaS users are asked to conform to how the product has been designed with exceptions for regulatory requirements and a few key business requirements. This may be difficult to implement what is known as a “zero” mod approach. 3. With frequent releases (every 3 months) resources may be strained in planning and implementing these releases. Vendors usually indicate you can Apply a release but you don’t have to activate it. This would still entail some amount of work. 4. Compared to history with off premise solutions, SaaS solutions have limited service level. Usually, convenience for cause, and termination services are not well negotiated. 5. Implementation costs are usually middle of the road, SaaS is not the cheapest to implement but also not the most expensive.

4. Evaluation Criteria



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TMG Primary Evaluation Criteria and Weights

- The following are the primary evaluation categories and the weights that were used by TMG to evaluate the alternative scenarios.

Evaluation Matrix - C. Evaluation Catégories

Item #	Evaluation Category	Weight	Description
1	Implementation Costs	15%	The total cost to implement the scenario.
2	Operational Costs	10%	The total annual cost to operate the scenario.
3	Implementation Timeframe	5%	The time to implement and stabilize the scenario.
4	Solution Risk & Viability	10%	The risk associated with installing and operating the scenario.
5	Resource Utilization	15%	The staffing and resources to implement and operate the scenario.
6	Business Considerations	20%	The scenario meets various business constructs and considerations.
7	Technology Considerations	10%	The scenario meets various technical constructs and considerations.
8	Benefits & Improvements	15%	The scenario delivers benefits and improvements to various stakeholders.
	Total	**100%**	

TMG Subcategory Evaluation Criteria

The following are the subcategories that were used by TMG to evaluate the alternative scenarios.

Evaluation Matrix - D. Evaluation Subcategories

ITEM #	Evaluation Category	Subcategory 1	Subcategory 2	Subcategory 3	Subcategory 4	Subcategory 5
1	Implementation Costs	$50M or Less	$50M to $65M	$65M to $85M	$85m to $105M	Over $105M
2	Operational Costs	$10M or Less	$10M to $15M	$15M to $20M	$20M to $25M	Over $25M
3	Implementation Timeframe	24 Months or Less	24 to 30 Months	30 to 35 Months	35 to 40 Months	Over 40 Months
4	Solution Risk & Viability	Application Risk	Platform Risk	Business Risk	Project Risk	Viability
5	Resource Utilization	$1M or Less	$1M to $10M	$10M to $20M	$20m to $40M	Over $40M
6	Business Considerations	Revenue Stream	Utility & Customer Transformation	Cost Recovery & Investment	Automation & Efficient Business Operations	Growth Strategies
7	Technology Considerations	CIS Roadmap	Aging CIS	Cloud Solution & Services	Scalability & Performance	Efficient Technical Operations
8	Benefits & Improvements	Regulatory Bodies	Executives / Board	Technical Personnel	Business Users	Customers

5. Detailed Evaluation Results



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TMG Evaluation Matrix – Grading Scale

- The following are the grades which were used by TMG to evaluate each of the alternative scenarios across all evaluation categories and subcategories. The results are presented on the following pages.

Evaluation Matrix - B. Grade Scale

Rating Value	Short Description	Long Description
2	Meets	The Alternative Scenario demonstrates the capability to meet the evaluation criteria or it meets defined metrics for this rating.
1	Meets Most	The Alternative Scenario demonstrates the capability to meet most of the evaluation criteria or it meets defined metrics for this rating.
0	Somewhat Meets	The Alternative Scenario demonstrates the capability to somewhat meet the evaluation criteria or it meets defined metrics for this rating.
-1	Only Meets a Few	The Alternative Scenario demonstrates the capability to only meet a few of the evaluation criteria or it meets defined metrics for this rating.
-2	Does Not Meet	The Alternative Scenario demonstrates that it does not meet the evaluation criteria or it meets defined metrics for this rating.

TMG Analysis - 1. Installation Costs

- The following summarizes TMG's analysis of installation costs for each scenario.

Scenario:	1. Status Quo	2. Re-engineer CIS	3. Custom Develop CIS	4. Another Utility CIS	5. New PaaS CIS	6. New SaaS CIS
Assigned Score:	2 Meets	1 Meets Most	-2 Does Not Meet	-1 Meets Few	-2 Does Not Meet	-2 Does Not Meet
Install Value:	$0m to $0m	$62m to $82m	$168m to $216m	$103m to $127m	$126m to $154m	$115m to $145m

Note: minus ES&G and IDC plus contingency.

TMG Analysis - 2. Operational Costs

- The following summarizes TMG's analysis of operational costs for each scenario.

Scenario:	1. Status Quo	2. Re-engineer CIS	3. Custom Develop CIS	4. Another Utility CIS	5. New PaaS CIS	6. New SaaS CIS
Assigned Score:	-1 Meets Few	0 Somewhat Meets	-2 Does Not Meet	2 Meets	2 Meets	2 Meets
Annual Value:	$18m to $22m	$17m to $21m	$27m to $33m	$8m to $10m	$8m to $10m	$8m to $10m

TMG Analysis - 3. Implementation Timeframe

- The following summarizes TMG's analysis of implementation timeframe for each scenario.

Scenario:	1. Status Quo	2. Re-engineer CIS	3. Custom Develop CIS	4. Another Utility CIS	5. New PaaS CIS	6. New SaaS CIS
Assigned Score:	2 Meets	2 Meets	-2 Does Not Meet	-1 Meets Few	-1 Meets Few	-1 Meets Few
Value:	0 mo	21 mo	72 mo	39 mo	36 mo	36 mo

Note: involves plan/select, implementation, stabilization.

TMG Analysis - 4. Solution Risk & Viability

- The following summarizes TMG's analysis of solution risk and viability for each scenario.

Scenario:	1. Status Quo	2. Re-engineer CIS	3. Custom Develop CIS	4. Another Utility CIS	5. New PaaS CIS	6. New SaaS CIS
Assigned Score:	-1 Meets Few	-1 Meets Few	-1 Meets Few	0 Somewhat Meets	2 Meets	1 Meets Most
Application Risk:	-2 Does Not Meet	-2 Does Not Meet	-1 Meets Few	1 Meets Most	2 Meets	2 Meets
Platform Risk:	-2 Does Not Meet	-2 Does Not Meet	-1 Meets Few	1 Meets Most	1 Meets Most	2 Meets
Business Risk:	-2 Does Not Meet	-1 Meets Few	2 Meets	0 Somewhat Meets	2 Meets	1 Meets Most
Project Risk:	2 Meets	0 Somewhat Meets	-2 Does Not Meet	-2 Does Not Meet	2 Meets	0 Somewhat Meets
Viability:	-1 Meets Few	1 Meets Most	-2 Does Not Meet	-2 Does Not Meet	2 Meets	1 Meets Most

TMG Analysis - 5. Resource Utilization

- The following summarizes TMG's analysis of internal resource utilization for each scenario.

Scenario:	1. Status Quo	2. Re-engineer CIS	3. Custom Develop CIS	4. Another Utility CIS	5. New PaaS CIS	6. New SaaS CIS
Assigned Score:	2 Meets	0 Somewhat Meets	-2 Does Not Meet	0 Somewhat Meets	-1 Meets Few	-1 Meets Few
Value:	$0m to $0m	$13m to $19m	$49m to $61m	$18m to $22m	$25m to $31m	$25m to $31m

TMG Analysis - 6. Business Considerations

- The following summarizes TMG's analysis of business considerations for each scenario.

Scenario:	1. Status Quo	2. Re-engineer CIS	3. Custom Develop CIS	4. Another Utility CIS	5. New PaaS CIS	6. New SaaS CIS
Assigned Score:	-1 Meets Few	-1 Meets Few	2 Meets	1 Meets Most	2 Meets	2 Meets
Revenue Stream:	-2 Does Not Meet	-2 Does Not Meet	2 Meets	2 Meets	2 Meets	2 Meets
Utility Transformation:	-2 Does Not Meet	-2 Does Not Meet	1 Meets Most	1 Meets Most	1 Meets Most	2 Meets
Cost Recovery & Investment:	2 Meets	1 Meets Most	1 Meets Most	1 Meets Most	2 Meets	2 Meets
Automation and Efficient Ops:	-2 Does Not Meet	-2 Does Not Meet	2 Meets	1 Meets Most	2 Meets	2 Meets
Supports Growth Strategies:	-2 Does Not Meet	1 Meets Most	2 Meets	1 Meets Most	1 Meets Most	2 Meets

TMG Analysis - 7. Technology Considerations

- The following summarizes TMG's analysis of technology considerations for each scenario.

Scenario:	1. Status Quo	2. Re-engineer CIS	3. Custom Develop CIS	4. Another Utility CIS	5. New PaaS CIS	6. New SaaS CIS
Assigned Score:	-2 Does Not Meet	-1 Meets Few	0 Somewhat Meets	1 Meets Most	1 Meets Most	2 Meets
CIS Product Roadmap:	-2 Does Not Meet	-2 Does Not Meet	-2 Does Not Meet	1 Meets Most	1 Meets Most	2 Meets
Aging CIS:	-2 Does Not Meet	-2 Does Not Meet	1 Meets Most	1 Meets Most	2 Meets	2 Meets
Cloud Solution:	-2 Does Not Meet	-2 Does Not Meet	1 Meets Most	1 Meets Most	1 Meets Most	2 Meets
Scalability & Performance:	1 Meets Most	1 Meets Most	1 Meets Most	1 Meets Most	1 Meets Most	2 Meets
Efficient Technical Ops:	-2 Does Not Meet	-1 Meets Few	1 Meets Most	1 Meets Most	1 Meets Most	2 Meets

TMG Analysis - 8. Benefits & Improvements

- The following summarizes TMG's analysis of benefits and improvements for each scenario.

Scenario:	1. Status Quo	2. Re-engineer CIS	3. Custom Develop CIS	4. Another Utility CIS	5. New PaaS CIS	6. New SaaS CIS
Assigned Score:	0 Somewhat Meets	0 Somewhat Meets	0 Somewhat Meets	0 Somewhat Meets	1 Meets Most	2 Meets
Regulatory Bodies:	0 Somewhat Meets	0 Somewhat Meets	-2 Does Not Meet	0 Somewhat Meets	0 Somewhat Meets	1 Meets Most
Executives/ Board:	-2 Does Not Meet	-2 Does Not Meet	-2 Does Not Meet	0 Somewhat Meets	0 Somewhat Meets	2 Meets
Technical Personnel:	-2 Does Not Meet	0 Somewhat Meets	-2 Does Not Meet	0 Somewhat Meets	0 Somewhat Meets	2 Meets
Business Users:	1 Meets Most	1 Meets Most	2 Meets	0 Somewhat Meets	2 Meets	2 Meets
Customers:	1 Meets Most	-2 Does Not Meet	2 Meets	1 Meets Most	2 Meets	2 Meets

6. Summary Scoring



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TMG Summary Scoring

- The following summarizes TMG's scores for all of the evaluation categories for each alternative scenario.

Scenario:	1. Status Quo	2. Re-engineer CIS	3. Custom Develop CIS	4. Another Utility CIS	5. New PaaS CIS	6. New SaaS CIS
TOTAL OVERALL:	0 Somewhat Meets	-1 Meets Few	-1 Meets Few	1 Meets Most	1 Meets Most	1 Meets Most
1. Installation Costs:	2 Meets	1 Meets Most	-2 Does Not Meet	-1 Meets Few	-2 Does Not Meet	-2 Does Not Meet
2. Operational Costs:	-1 Meets Few	0 Somewhat Meets	-2 Does Not Meet	2 Meets	2 Meets	2 Meets
3. Installation Timeframe:	2 Meets	2 Meets	-2 Does Not Meet	-1 Meets Few	-1 Meets Few	-1 Meets Few
4. Solution Risk & Viability:	-1 Meets Few	-1 Meets Few	-1 Meets Few	0 Somewhat Meets	2 Meets	1 Meets Most
5. Resource Utilization:	2 Meets	0 Somewhat Meets	-2 Does Not Meet	0 Somewhat Meets	-1 Meets Few	-1 Meets Few
6. Business Considerations:	-1 Meets Few	-1 Meets Few	2 Meets	1 Meets Most	2 Meets	2 Meets
7. Technology Considerations:	-2 Does Not Meet	-1 Meets Few	0 Somewhat Meets	1 Meets Most	1 Meets Most	2 Meets
8. Benefits & Improvements:	0 Somewhat Meets	0 Somewhat Meets	0 Somewhat Meets	0 Somewhat Meets	1 Meets Most	2 Meets

TMG Summary Ranking

- The following summarizes TMG's ranking of first to sixth place for all of the evaluation categories for each alternative scenario.

Scenario:	1. Status Quo	2. Re-engineer CIS	3. Custom Develop CIS	4. Another Utility CIS	5. New PaaS CIS	6. New SaaS CIS
TOTAL OVERALL:	4th Place	5th Place	6th Place	3rd Place	2nd Place	1st Place
1. Installation Costs:	1st Place	2nd Place	6th Place	3rd Place	5th Place	4th Place
2. Operational Costs:	5th Place	4th Place	6th Place	2nd Place	3rd Place	1st Place
3. Installation Timeframe:	1st Place	2nd Place	6th Place	5th Place	4th Place	3rd Place
4. Solution Risk & Viability:	6th Place	4th Place	5th Place	3rd Place	1st Place	2nd Place
5. Resource Utilization:	1st Place	2nd Place	6th Place	3rd Place	5th Place	4th Place
6. Business Considerations:	6th Place	5th Place	3rd Place	4th Place	2nd Place	1st Place
7. Technology Considerations:	6th Place	5th Place	4th Place	3rd Place	2nd Place	1st Place
8. Benefits & Improvements:	5th Place	6th Place	3rd Place	4th Place	1st Place	2nd Place

TMG Summary Award Points

- The following provides TMG's assigned award points by evaluation category for each alternative scenario.

			Awarded Points					
			1. Status Quo	2. Re-engineer CIS	3. Custom Develop CIS	4. Another Utility CIS	5. New PaaS CIS	6. New SaaS CIS
	100.00%	1,000	139	(110)	(585)	319	508	701
Evaluation Category	Assigned Weight	Assigned Points	Points	Points	Points	Points	Points	Points
Implementation Costs	15%	150	300	150	(300)	(150)	(300)	(300)
Operational Costs	10%	100	(100)	0	(200)	200	200	200
Implementation Timeframe	5%	50	100	100	(100)	(50)	(50)	(50)
Solution Risk & Viability	10%	100	(100)	(80)	(80)	(40)	180	120
Resource Utilization	15%	150	300	0	(300)	0	(150)	(150)
Business Considerations	20%	200	(240)	(160)	320	240	320	400
Technology Considerations	10%	100	(140)	(120)	0	100	120	200
Benefits & Improvements	15%	150	19	0	75	19	188	281

- The following TMG table presents a ranking of alternative scenarios by total award points, the items in green should be considered.

TMG recommends pursuing these alternatives which do the best job of meeting overall criteria.	**701**	**6. New SaaS CIS**	**Positive Return.** Generally solutions with the highest scores should be pursued as they provide a positive return and acceptable risk.
	508	**5. New PaaS CIS**	
	319	**4. Another Utility CIS**	
TMG recommends not pursuing these alternatives as they do not result in any net benefit.	**139**	**1. Status Quo**	**Ground Zero.** Alternatives whose scores are near zero.
TMG recommends not pursuing these alternative as they do not adequately address evaluation criteria.	**-110**	**2. Re-engineer CIS**	**Negative Return.** Generally solutions with a score less than zero should not be pursued as they provide a negative return or unacceptable risk.
	-585	**3. Custom Develop CIS**	

TMG Recap – 1st Place – New SaaS CIS

Implementation Costs	Operational Costs	Implementation Timeframe	Solution Risk & Viability	Resource Utilization	Business Considerations	Technology Considerations	Benefits & Improvements
-2 Does Not Meet	2 Meets	-1 Meets Few	1 Meets Most	-1 Meets Few	2 Meets	2 Meets	2 Meets

Outstanding Points (2 and 1)

- Operational costs are significantly decreased over current spending.
- Application risk - This replaces the current legacy CIS with a modern CIS product to be supported by the vendor, and third parties.
- Platform risk - This will utilize a true public SaaS subscription solution, in keeping with the corporate vision and technical strategy.
- Business risk - In a SaaS environment, ATCO will be conforming to a template or model office which will drive design, and be able to accept and apply quarterly releases.
- Viability - This is the future direction of the industry. But ATCO is the first large utility who has decided to implement this solution. The industry is watching to see if it is successful.
- Will enable the system and the business to bill and collect current revenue streams and bill and collect for new revenue streams.
- Will enable an emphasis on the customer life-cycle, with a focus on the customer journey, self-service, and digital communications
- Can utilize existing Oracle licenses. Subscription fees during implementation years can be capitalized.
- Complete design authority. Indicated that while ATCO has to apply the quarterly release, they don't have to activate this.
- Supports growth strategies as onboarding tools could be developed as part of this customer effort. The new system will be very flexible to quickly add new products, programs, and services.
- This is a subscription license, with ATCO able to implement and stay on the CIS Product Roadmap for a CIS product solution. This scenario forces conformance to the product roadmap, while perpetual does not.
- This replaces the aging legacy CIS solution by a industry leading CIS product.
- This is on a cloud platform - public SaaS subscription, which fits the corporate vision and strategy.
- The solution can scale to accommodate a larger customer base to accommodate growth.
- Promotes efficient technical operations, it is a new technical and application solution, with many resources available in the market.
- Executive/Board - Very interested in moving to a cloud solution with a new product vendor. This fits the overall technical vision of a public SaaS platform.
- Technical personnel - alleviates many of the technical issues regarding support, development, operations, etc..
- Business users - can have a new product solution with regular releases, as they conform to the product and the future product roadmap.
- Customers – they will see a lot of benefits in service and availability of new products and programs.
- Regulatory bodies - with this solution they may be interested in the customer transformation and service. Reduction in operating costs is a benefit. This is the direction of the industry.

Satisfactory Points (0)

- Approximately 36 months to plan, select, implement, and stabilize the solution.
- Project risk - The SaaS model is new. It has some similarity to outsourced deals. But it brings with it newer technology, and an approach to design which makes the utility adhere to the product and its roadmap. Today, as of this analysis there are no active and successful implementations of a public SaaS CIS subscription solution. However, this is the direction of the industry.
- Significant internal resource expenditures are required to implement this solution.

Unsatisfactory Points (-1 and -2)

- High implementation costs.

TMG Recap – 2nd Place – New PaaS CIS

Implementation Costs	Operational Costs	Implementation Timeframe	Solution Risk & Viability	Resource Utilization	Business Considerations	Technology Considerations	Benefits & Improvements
-2 Does Not Meet	2 Meets	-1 Meets Few	2 Meets	-1 Meets Few	2 Meets	1 Meets Most	1 Meets Most

Outstanding Points (2 and 1)

- Operational costs are significantly decreased over current expenditures.
- This replaces the current legacy CIS with a modern CIS product to be supported by the vendor, and third parties.
- This will utilize a PaaS cloud platform. Although it is cloud based it does not meet the vision of a true public SaaS subscription solution.
- In a PaaS perpetual environment the utility is free to do what it wants to modify and enhance the system to meet specific business and regulatory requirements. It is very flexible to accommodate the needs of the business.
- The PaaS solution is much like hosting, which many utilities are familiar with. There have been many successful PaaS/Hosted solution that have been implemented on time, and on budget, with the expected functionality.
- Most large IOUs like ATCO are going with this or something they are calling MPaaS, which is Managed Platform as a Service. This is very viable.
- Will enable the system and the business to bill and collect current revenue streams and bill and collect for new revenue streams.
- Will enable an emphasis on the customer life-cycle, with a focus on the customer journey, self-service, and digital communications.
- Can utilize existing Oracle licenses. 85% of implementation fees are usually capx dollars.
- Complete design authority to implement new business operations and automation.
- Onboarding tools could be developed as part of this customer effort. The new system will be very flexible to quickly add new products, programs, and services.
- This is a perpetual license, with ATCO able to implement and stay on the CIS Product Roadmap for a CIS product solution. It is up to ATCO if they pursue a SaaS-like solution or do something more specific to ATCO operations.
- This replaces the aging legacy CIS solution by a industry leading CIS product.
- This Is on a cloud platform - private PaaS perpetual license, however, it is not inline with the corporate vision or strategy.
- The solution can scale to accommodate a larger customer base associated with acquisitions.
- Provides a new technical and application solution, with many resources available in the market.
- Technical personnel - A great solution, but it still requires more internal technical support then the SaaS solution.
- Business users - can have a new product solution with regular releases, and can still do enhancements as necessary. They should see significant improvements.
- Customers – will see a lot of benefits in new products, programs, and services.

Satisfactory Points (0)

- Regulatory bodies - with this solution they may be interested in the customer transformation and service. But still a high price tag. Reduction in operating costs is a benefit. Still like a hosted environment and does not meet some of the technology objectives.

Unsatisfactory Points (-1 and -2)

- Implementation costs are high.
- Implementation timeframe is 36 months to plan, select, implement, and stabilize the solution.
- Significant internal resource expenditures are required to implement this solution.

TMG Recap – 3rd Place – Another Utility CIS

Implementation Costs	Operational Costs	Implementation Timeframe	Solution Risk & Viability	Resource Utilization	Business Considerations	Technology Considerations	Benefits & Improvements
-1 Meets Few	2 Meets	-1 Meets Few	0 Somewhat	0 Somewhat	1 Meets Most	1 Meets Most	0 Somewhat

Outstanding Points (2 and 1)

- A significant reduction in current operating costs
- This replaces the current legacy CIS with a modern CIS product solution. However, there are issues which have to be addressed as the application is shared with another utility.
- This will utilize a PaaS cloud platform. Which does not meet the vision of a true public SaaS subscription solution.
- Will enable the system and the business to bill and collect current revenue streams and bill and collect for new revenue streams.
- Will enable an emphasis on the customer life-cycle, with a focus on the customer journey, self-service, and digital communications.
- Costs would be from scratch with another utility. 85% of implementation fees are usually capx dollars.
- Business operations may be hindered in some areas as ATCO will have to align with what the other utility(s) want to do.
- A new system will be very flexible to quickly add new products, programs, and services. There my be some issues to consider in working with the consortium to quickly onboard new customers.
- Assume this will involve the purchase and implementation of a CIS product solution with a product roadmap, however, ATCO may have issues maintaining a base product with the other utility(s) and stay on the product roadmap.
- This replaces the aging legacy CIS solution. ATCO will have to work with the other utility(s) to do upgrades, which may not be according to the ATCO schedule or plan.
- Assume would be on a cloud platform
- The solution can scale to accommodate a larger customer base.
- Provides a new technical and application solution, with many resources available in the market.
- Customers - there may be some restrictions by other utility(s) in terms of service and communication channels. It may not be the preferred choice for a customer.

Satisfactory Points (0)

- This is a design and implementation consortium where ATCO will have to work in conjunction with another utility, and may have to compromise on various design decisions.
- Executives/Board - It would be nice to share cost with another utility, but this also means sharing design. Not sure they would have much interest for the price tag and the risk.
- The utility will require a significant amount of internal resources to staff the project.
- Regulatory bodies - they would be interested in having Alberta utilities share in the cost of a new CIS. But still a large price tag, and they seem to be happy with what they have.
- Technical personnel - this has many positive and negative considerations. But from a technical perspective, ATCO would need to support the application with limited resources.
- Business users - would have to adapt to how other an other utility wants to do business. Could be a problem for them.

Unsatisfactory Points (-1 and -2)

- A high implementation price tag.
- A long period to plan, select, implement, and stabilize the solution.
- Over the past 40 years there have been may consortiums where utilities have gotten together to design and implement a new CIS, e.g. ATCO SinglePoint. There have also been a number of attempts for utilities to work together to procure and implement a common CIS. The majority of these have failed. This is a very high risk project, it usually takes much more time and money and ends up in failure or the utilities go there own way.
- The success of doing a combined selection, design, and implementation of a CIS with more then 1 utility has been very limited. These have been known to be runaway projects, where the involved utilities end up leaving the consortium and doing their own thing.

TMG Recap – 4th Place – Status Quo

Implementation Costs	Operational Costs	Implementation Timeframe	Solution Risk & Viability	Resource Utilization	Business Considerations	Technology Considerations	Benefits & Improvements
2 Meets	-1 Meets Few	2 Meets	-1 Meets Few	2 Meets	-1 Meets Few	-2 Does Not	0 Somewhat

Outstanding Points (2 and 1)

- There are no implementation dollars.
- There is no project so zero months.
- There is no implementation project, therefore no project risk.
- There is no implementation project, therefore no internal resources required.
- Regarding current investment, there are no implementation dollars.
- The solution can scale to accommodate a larger customer base.
- Business Users - they like the system and they have simply learned to live with it and its deficiencies and workarounds.
- Customers - It seem customers have no significant issues with the current system.

Satisfactory Points (0)

- Regulatory Bodies - seems satisfied with what they are getting out of the current CIS, and no cost to replace. But may become an issue for them.

Unsatisfactory Points (-1 and -2)

- Operational costs remain at current levels.
- This scenario retains the current aging CIS.
- This is a hosted environment which has already been replatformed. It does not adhere to a cloud platform.
- There are no updates or impacts to the business which would address any existing issues, or provide for an improved customer experience.
- Maintaining status quo is viable in the short term but not the long term.
- The current and future revenue stream remains in jeopardy.
- Does not do anything to enable the customer experience, interaction, or digital experience.
- No changes to business operations or automation.
- The current system is not made to quickly onboard new customers, or add new products, programs, or services.
- There is no product roadmap, this is an inhouse developed application which started out with a consortium. There are no regular releases.
- This retains the aging legacy CIS solution.
- No cloud solution, this is a hosted solution.
- Does not address issues with technical skilled labor to support the current legacy CIS.
- Executives/Board - They understand the need to replace from both a business and technical perspective. So it needs to be replaced.
- Technical Personnel - They do not want to continue to support this legacy CIS. Key assets are retiring. It is risky, time consuming and costly to maintain.

TMG Recap – 5th Place – Re-engineer CIS

Implementation Costs	Operational Costs	Implementation Timeframe	Solution Risk & Viability	Resource Utilization	Business Considerations	Technology Considerations	Benefits & Improvements
1 Meets Most	0 Somewhat	2 Meets	-1 Meets Few	0 Somewhat	-1 Meets Few	-1 Meets Few	0 Somewhat

Outstanding Points (2 and 1)

- The cost to implement is moderate.
- A shorter timeframe to plan, select, implement and stabilize the solution.
- From a viability perspective, very few have done this successfully. Not sure if any true re-engineering software is still available in the market, however assume there is software available to just convert code without re-engineering the application.
- There are no current investment dollars, however, 85% of implementation fees are usually capx dollars.
- Changing the application code, may allow for faster and less costly development to accommodate onboarding, or add new products, programs, or services.
- Yes, the solution can scale to accommodate a larger customer base. No tools to facilitate onboarding of new customers.
- Business Users - this has minimal impact on the business user, but they may see improvements on the cost and the turnaround timeframes on enhancements.

Satisfactory Points (0)

- Annual operational costs are slightly less then current expenditures.
- This is a minimal project, however, there are not a lot of other projects that can be pointed to where large scale legacy CIS applications have been re-engineered. As a result, this project risk is a little higher. Plus, it does not do a lot for mitigating future project risk associated with onboarding new customers.
- Regulatory Bodies they wont really understand why they need to spend money on a technical upgrade on the existing system if they are already getting what they need.
- Technical Personnel - they do not want to continue to support this legacy CIS. Key assets are retiring. It is risky, time consuming and costly to maintain. This scenario provides some relief, but does not go far enough
- Internal resources to staff the implementation project are moderate.

Unsatisfactory Points (-1 and -2)

- This scenario retains the current aging CIS, it simply is re-engineering it from an application written in Cobol, to one written in a more modern language. So, it may address some of the application and technology issues, but it retains the current data, process, user interface, etc..
- Assume only converting the code, the application will continue to run in the existing hosted environment and not a cloud platform.
- There are no updates or impacts to the business which would address any existing issues, or provide for an improved customer experience. However, with a new language enhancements may be conducted quicker and at a lower cost.
- The current and future revenue stream remains in jeopardy.
- Does not do anything to enable the customer experience, interaction, or digital experience.
- There are no changes to business operations or automation.
- There is no product roadmap, this is an inhouse developed application which started out with a consortium. There are no regular releases. This is simply re-engineering the same functionality developed with Cobol to another Current Language.
- This retains the aging legacy CIS solution.
- This is not a cloud solution and will continue to be hosted by Wipro.
- Does not address issues with technical skilled labor to support the legacy CIS. However, does provide some relief with new code and perhaps quicker time to market and less cost.
- Executive /Board - this is just a bandage with a price tag, does not get them a lot.
- Customers - would not really benefit from this scenario, this is more of a technical upgrade.

TMG Recap – 6th Place – Custom Develop CIS

Implementation Costs	Operational Costs	Implementation Timeframe	Solution Risk & Viability	Resource Utilization	Business Considerations	Technology Considerations	Benefits & Improvements
-2 Does Not	-2 Does Not	-2 Does Not	-1 Meets Few	-2 Does Not	2 Meets	0 Somewhat	0 Somewhat

Outstanding Points (2 and 1)

- This scenario will provide ATCO with a solution that is specific to the business needs of the organization and the customers.
- Will enable the system and the business to collect current revenue streams and bill and collect for new revenue streams.
- Will enable an emphasis on the customer life-cycle, with a focus on the customer journey, self-service, and digital communications.
- Costs would be from scratch. 85% of implementation fees are usually capx dollars.
- Complete design authority to implement new business operations and automation.
- Onboarding tools could be developed as part of this customer effort. The new system will be very flexible to quickly add new products, programs, and services.
- This replaces the aging legacy CIS solution, however, it is a "one-off" and it is up to ATCO to enhance the solution.
- The solution can scale to accommodate a larger customer base.
- A new technical and application solution, with many resources available in the market.
- Business users - Users would have a system completely tailored to their needs in order to perform their jobs and serve customers.
- Customers - The new solution would provide for all customer requirements, and interactions.

Satisfactory Points (0)

- none

Unsatisfactory Points (-1 and -2)

- Implementation costs are the most expensive.
- Annual operation costs significantly increase over current expenditures.
- A long timeframe to plan, select, implement and stabilize, more then any other solution.
- This scenario replaces the current aging CIS, with a brand new solution. However, it will take time compared to other scenarios. It results in ATCO continuing to have support, develop, maintain, and operate the application.
- Assume custom development of a new CIS solution will continue to use the existing hosted environment. However, there is a possibility it may be moved to a PaaS platform.
- This is a tremendous risk, and there have been many failures. However, now a utility will buy a CIS design guide, or may purchase a CIS product and then discontinue maintenance. In any event, this is a very high risk scenario.
- The days of custom development are over, and it is recommended that for a number of reasons this is not a viable solution.
- The highest level of internal resource utilization.
- There is no product roadmap. This is a custom developed solution specifically for ATCO. It is assumed that regular releases are delivered every several years.
- Planned for the current hosted environment. But could be placed on any platform.
- Regulatory bodies - Large price tab, and risk, makes this an issue for the regulators.
- Executives/Board - Why get back into the custom CIS world like they were with SinglePoint?
- Technical Personnel - This would place significant emphasis on ATCO to support a large custom developed CIS, like SinglePoint. Not attractive to them.