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February 24, 2026

British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC
V6Z 2N3

Dear Registrar:

Re: FortisBC Energy Inc. (FEI) and FortisBC Inc. (FBC) (collectively FortisBC or the Companies)

Application for Approval of Capital Expenditures for the Enterprise Resource Planning (ERP) Modernization and Customer Information System (CIS) Replacement Projects (Application)

Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 1

On November 4, 2025, FortisBC filed the Application referenced above. In accordance with the regulatory timetable established in BCUC Order G-275-25 for the review of the Application, FortisBC respectfully submits the attached response to BCUC IR No. 1.[1]

FortisBC has filed a portion of the responses to BCUC IR1 3.2, 13.1, 15.1, and Attachments 2.3 and 5.3 on a confidential basis and has provided a redacted version for the public record of this proceeding. FortisBC requests that the information be held confidential by the BCUC in perpetuity, pursuant to section 23 of the BCUC's Rules of Practice and Procedure regarding confidential documents as set out in Order G-192-25,[2] as the information is commercially sensitive.

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[1] For convenience and efficiency, if FortisBC has provided an internet address for referenced reports instead of attaching the documents to its IR responses, FortisBC intends for the referenced documents to form part of its IR responses and the evidentiary record in this proceeding.

[2] As amended by Order G-228-25.

If further information is required, please contact the undersigned.

Sincerely,

on behalf of FORTISBC

Original signed:

Sarah Walsh

Attachments

cc (email only): Registered Interveners

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A. FORTISBC'S ENTERPRISE RESOURCE PLANNING SYSTEM

1.0 Reference: HISTORY OF ENTERPRISE RESOURCE PLANNING (ERP) AT FORTISBC

Exhibit B-1 (Application), Section 2.2.2, pp. 13-14, Section 2.3.2, pp. 22-24, Section 4.2.2, pp. 55-56, Section 4.3, pp. 57-58

FortisBC ERP Implementation History

On pages 13 to 14 of FortisBC Energy Inc. (FEI) and FortisBC Inc.'s (FBC) (collectively, FortisBC) application for Approval of Capital Expenditures for the Enterprise Resource Planning Modernization (ERP Modernization Project) and Customer Information System Replacement Projects (CIS Replacement Project) (Application), FortisBC states that FEI implemented the Customer Care Enhancement (CCE) Project on the SAP Customer Relationship Management (CRM) application IC-Web in 2012. FortisBC also states it completed a corporate-wide initiative to migrate the individual FEI and FBC SAP applications to a single, unified SAP platform in 2018.

On pages 22 to 24 of the Application, FortisBC states that FBC implemented CIS Plus in 2000. FortisBC further states that vendor support has not been available since 2006 and FBC has relied on specialized legacy system knowledge to extend the life of the system.

On page 56, FortisBC states that FBC retained Util-Assist in 2018 to perform an independent assessment of CIS Plus. The assessment concluded that CIS Plus was approaching end of life and Util-Assist recommended that FBC proceed with a comprehensive evaluation of an alternate solution for CIS Plus.

On page 58, FortisBC describes Alternative 2 that envisages implementing CIS Plus functional requirements within the SAP ERP Central Component (ECC) and SAP CRM (IC-Web) applications.

1.1 Please discuss why FBC did not migrate CIS Plus to the SAP ECC and SAP CRM applications, as described in Alternative 2, in or around 2018 following Util-Assist's

recommendation to evaluate an alternate solution for CIS Plus, considering the unified SAP ECC platform and CRM were established within FortisBC at that time.

Response:

Several factors informed FBC's decision not to migrate CIS Plus to the SAP ECC and SAP CRM applications immediately following Util-Assist's recommendation.

First, FortisBC had only recently completed the unification of the SAP ECC platform across FBC and FEI in August 2018, which was a complex initiative that introduced significant organizational and process change, particularly within FBC. FortisBC determined that a stabilization period was required to allow the organization to fully adopt and optimize the unified ERP environment before undertaking an additional major IS transformation project.

Second, SAP had already communicated that mainstream maintenance for SAP ECC and FEI's SAP CRM applications would be ending by 2025 (with a later update extending mainstream support to 2027), indicating that a major upgrade or replacement of these platforms would need to be undertaken.

Third, migrating FBC's CIS Plus application to SAP ECC and CRM was assessed as a complex, multi-month initiative with an estimated 15 months to complete, requiring substantial change management and training for the FBC Customer Service department. In advance of committing to such an undertaking, FortisBC considered it prudent to first establish the longer-term roadmap and timing for the SAP ECC and CRM platforms to avoid duplicative investments.

Finally, FBC assessed the near-term operational risks associated with continuing to operate CIS Plus and determined that with continued support from internal resources and vendor support from Software AG, targeted technical upgrades could be implemented to temporarily extend the life of the system while longer term modernization options were evaluated.

B. ERP MODERNIZATION PROJECT

2.0 Reference: ANALYSIS OF ALTERNATIVES

Exhibit B-1, Section 3.3.2, Tables 3-1 and 3-2, pp. 37, 39-40, BCUC Certificate of Public Convenience and Necessity Guidelines, p. 5

Financial Analysis of ERP Modernization Project Alternatives

On page 37 of the Application, FortisBC provides Table 3-1, the financial summary of ERP Alternative 2 (non-SAP ERP Alternative). The table includes a cost breakdown of the total Present Value (PV) of different cost categories and the associated rate impact. The financial analysis of the non-SAP Alternative is based on an Association for the Advancement of Cost Engineering International (AACE) Class 5 cost estimate.

On page 39 of the Application, FortisBC provides Table 3-2, showing the financial summary of ERP Alternative 3 (SAP ERP Alternative). The table includes a cost breakdown of the total PV of different cost categories and the associated rate impact. The financial analysis of the ERP SAP Alternative is based on an AACE Class 4 cost estimate.

2.1 Please provide an AACE Class 5 estimate for the ERP SAP Alternative and the basis for this estimate. If not available, please explain why such an estimate was not prepared.

2.1.1 If the AACE Class 5 estimate is prepared, please provide a version of Table 3-2 showing the financial analysis for the ERP SAP Alternative using the AACE Class 5 estimate.

2.1.2 Please discuss how the use of an AACE Class 5 estimate for the ERP non-SAP Alternative and the ERP SAP Alternative would affect the comparability of the two alternatives relative to the use of the Class 4 estimate for those two alternatives.

Response:

Please refer to Table 1 below summarizing the estimated incremental capital and O&M costs for the ERP SAP Alternative (ERP Alternative 3) based on an AACE Class 5 estimate, including the resulting PV of incremental revenue requirement and levelized delivery rate impact (FEI) and rate impact (FBC) over a 13-year analysis period in the same format as Table 3-2 of the Application. The financial analysis for the Class 5 estimate is based on the same 13-year analysis period as the Class 4 estimate that was presented in Table 3-2 of the Application. Table 1 below also provides the Class 5 estimate for ERP Alternative 2 (non-SAP ERP Alternative) and the Class 4 estimate for ERP Alternative 3 (as filed) for comparative purposes.

FortisBC notes that, while responding to the BCUC and Intervener IRs, it identified some minor errors in the financial models. In particular, a portion of the facilities and change management costs during implementation were inadvertently categorized as O&M costs instead of capital.

FortisBC has filed an Errata concurrently with these IR responses reflecting the small changes to the financial analysis which have been summarized in the cover letter to the Errata. Table 1 below and subsequent IR responses reflect the same corrections as presented in the Errata, ensuring facilities and change management costs are categorized as capital.

The Class 5 estimate for ERP Alternative 3 is based on the SAP S/4HANA implementation information received during the RFEOI (as discussed in Section 3.3 of the Application) for system integrator and software license costs. This information reflects the high-level ERP pricing from vendors, whereas the Class 4 estimate presented in the Application incorporated additional details developed together with the vendor for these components.

Other assumptions, including FortisBC's labour, facilities, and infrastructure costs during implementation as well as post-implementation incremental support (with the exception of the software licensing costs), reduction in on-premise infrastructure, and savings from improved operational efficiencies are not vendor-specific. Therefore, these cost components were estimated primarily using the same internal cost estimation methods that were used for the Class 4 cost estimate. As such, the results for the Class 4 and Class 5 estimates are similar.

Table 1: Financial Summary of Class 5 Estimate for ERP Alternative 3 Compared to ERP Alternative 2 (Class 5) and ERP Alternative 3 (Class 4) from the Errata to the Application

	ERP Alternative 2	ERP Alternative 3	
Class Estimate	Class 5	Class 5	Class 4 (As-Filed in Errata)
Total PV of Incremental Capital ($ millions)	130.832	100.226	102.694
Total PV of Incremental O&M ($ millions)	13.660	(0.792)	0.191
FEI Total PV of Incremental Revenue Requirement over 13-years ($ millions)	111.808	83.595	86.328
FEI Levelized Delivery Rate Impact over 13-years (%)	1.02%	0.76%	0.79%
FBC Total PV of Incremental Revenue Requirement over 13-years ($ millions)	41.862	34.582	35.433
FBC Levelized Rate Impact over 13-years (%)	0.94%	0.77%	0.79%

The financial analysis for the AACE Class 5 estimate for ERP Alternative 3 includes the following assumptions:

- **SAP S/4HANA Implementation Costs:** FortisBC used the system integrator and software license costs included in the SAP responses to the RFEOI that was issued for the ERP Modernization Project as the primary basis for the implementation costs. Additional implementation costs were then estimated and added, including labour, software licensing, facilities and infrastructure costs. The estimated capital and O&M costs for the implementation are approximately $121.4 million and $9.8 million, respectively.

- **Incremental Support Costs:** The annual software license fees would increase as a result of the switch to the S/4HANA subscription, which includes managed services. FortisBC used the annual software license costs included in the SAP responses to the RFEOI that was issued for the ERP Modernization Project to estimate the annual increase in fees. However, the increase will be partially offset by a reduction in annual SAP support costs as well as a reduction in FortisBC labour support costs due to the shift to SAP-managed services. Over the post-implementation period, FortisBC estimates that these changes would result in a net increase to the annual O&M costs by an average of approximately $728 thousand, while the annual capital costs would decrease by an average of approximately $541 thousand. FortisBC notes that, as discussed above, except for the software licencing costs, all assumptions for the post-implementation incremental support costs for the Class 5 estimate are the same as the Class 4 estimate.
- **Reduction in On-premise Infrastructure Costs:** SAP S/4HANA would be implemented as a cloud-based platform; therefore, the requirements of on-premise servers would be reduced. FortisBC estimates a decrease in the annual capital and O&M costs of approximately $714 thousand and $383 thousand, respectively, over the post-implementation period. FortisBC notes that, as discussed above, all assumptions for the post-implementation reduction in on-premise infrastructure costs for the Class 5 estimate are the same as the Class 4 estimate.
- **Operational Efficiencies and Cost Savings:** FortisBC identified operational efficiencies and cost savings that the new S/4HANA system would enable in areas such as warehouse inventory, asset management or maintenance, and customer services starting from one year after the completion of implementation. Over the post-implementation period, FortisBC estimates an average decrease in the annual capital and O&M costs of approximately $213 thousand and $1.4 million, respectively. FortisBC notes that, as discussed above, all assumptions for the savings related to operational efficiencies for the Class 5 estimate are the same as the Class 4 estimate.

As shown in Table 1 above, the Class 5 estimate for ERP Alternative 3 results in slightly lower SAP S/4HANA costs than the Class 4 estimate based on the information received from the RFEOI for the system integrator and software license costs. Therefore, when comparing the Class 5 estimate for ERP Alternative 3 (SAP ERP Alternative) against the Class 5 estimate for ERP Alternative 2 (non-SAP ERP Alternative) over the 13-year analysis period, ERP Alternative 3 continues to have a lower PV of incremental revenue requirement ($28.2 million less for FEI and $7.3 million less for FBC) and a lower rate impact (0.26 percent less for FEI and 0.17 percent less for FBC) than ERP Alternative 2.

Page 5 of the British Columbia Utilities Commission Certificate of Public Convenience and Necessity guidelines (CPCN Guidelines) provides that the analysis of alternatives must contain "a schedule calculating the net present values [NPV] of the incremental cost and benefit cash flows of the project and feasible alternatives, and justification of the length of the term and discount rate used for the calculation."

2.2 Please provide a high-level summary of the tangible and quantifiable benefits for each of the feasible alternatives, if any.

Response:

The two feasible alternatives share the same type of tangible and quantifiable benefits, which include reductions in incremental capital-related support costs, reductions in annual on-premise capital and O&M infrastructure costs, and operational efficiencies and cost savings.

For ERP Alternative 2 (non-SAP Replacement), over the 13-year analysis period, these benefits equate to a combined total average annual savings of $0.357 million. For ERP Alternative 3 (SAP S/4HANA), over the 13-year analysis period, these benefits equate to a combined total average annual savings of $2.234 million.

In addition to higher quantifiable savings, ERP Alternative 3 has lower implementation and post-implementation support costs than ERP Alternative 2 over the 13-year analysis period. Please refer to Table 1 below summarizing the estimated tangible and quantifiable costs and benefits as identified in Sections 3.3.2.1.2 and 3.3.2.2.2 for ERP Alternative 2 (non-SAP Replacement) and ERP Alternative 3 (SAP S/4HANA), respectively, which include:

- Total implementation costs;
- Annual incremental support costs;
- Reduction in annual on-premise infrastructure costs;
- Operational efficiencies and cost savings; and
- Incremental revenue requirement and levelized rate impact.

Table 1: Summary of Estimated Tangible and Quantifiable Costs/Benefits for ERP Alternative 2 and ERP Alternative 3[1]

		ERP Alternative 2 (non-SAP)	ERP Alternative 3 (SAP S/4HANA)	Difference (ERP 3 - ERP 2)
Implementation Costs				
Capital (During Implementation Period)		$ 155.225	$ 124.078	$ (31.147)
O&M (During Implementation Period)		10.148	9.089	(1.059)
Total ($ millions)		**$ 165.373**	**$ 133.167**	**$ (32.206)**
Incremental Support Costs / (Savings)				
Capital (Average over 13-year Analysis Period)		$ (0.350)	$ (0.541)	$ (0.191)
O&M (Average over 13-year Analysis Period)		2.616	1.021	(1.595)
Total ($ millions)		**$ 2.266**	**$ 0.481**	**$ (1.785)**
Reduction in On-premise Infrastructure Costs / (Savings)				
Capital (Average over 13-year Analysis Period)		$ (0.714)	$ (0.714)	$ 0.000
O&M (Average over 13-year Analysis Period)		(0.383)	(0.383)	$ (0.000)
Total ($ millions)		**$ (1.097)**	**$ (1.097)**	**$ (0.000)**
Operational Efficiencies and Costs / (Savings)				
Capital (Average over 13-year Analysis Period)		$ (0.227)	$ (0.213)	$ 0.014
O&M (Average over 13-year Analysis Period)		(1.299)	(1.405)	(0.106)
Total ($ millions)		**$ (1.526)**	**$ (1.618)**	**$ (0.092)**
Revenue Requirement & Levelized Rate Impact				
Total PV of Incremental Revenue Requirement over 13-years ($ millions)	FEI	$ 111.808	$ 86.328	$ (25.480)
	FBC	$ 41.862	$ 35.433	$ (6.429)
Levelized Rate Impact over 13-years (%)	FEI	1.02%	0.79%	-0.23%
	FBC	0.94%	0.79%	-0.14%

Overall, based on the estimated implementation costs and post-implementation savings, ERP Alternative 3 will result in a lower rate impact to FEI and FBC customers than ERP Alternative 2.

2.2.1 Please explain why FortisBC conducted a PV analysis as opposed to an NPV analysis for the financial comparison of the ERP Modernization Project alternatives.

2.2.2 Please discuss whether conducting an NPV analysis would change the evaluation of the ERP Modernization Project alternatives. If not, please explain why not.

Response:

FortisBC clarifies that Tables 3-1 and 3-2 of the Application provide the *total* Present Value (PV) of incremental revenue requirements over the 13-year analysis period for ERP Alternatives 2 and

[1] As discussed in the response to BCUC IR1 2.1, while responding to the BCUC and Intervener IRs, FortisBC identified some minor errors in the financial models. FortisBC has filed an Errata concurrently with these IR responses reflecting the small changes to the financial analysis which have been summarized in the cover letter to the Errata. Table 1 reflects the corrected costs and financial analysis as presented in the Errata.

3, respectively. Similarly, Tables 4-1 and 4-2 of the Application provide the *total* PV of incremental revenue requirement for CIS Alternatives 3 and 4, respectively. A total PV of incremental revenue requirements over the analysis period is the same as the net present value (NPV) of incremental revenue requirements over the analysis period. As such, there would be no change to the evaluation of the feasible ERP or CIS alternatives presented in Sections 3 and 4 of the Application.

FortisBC uses the term "total PV" instead of NPV, as the term NPV tends to be associated with the use of cash flows, whereas FortisBC uses incremental revenue requirements. FEI and FBC have consistently used the total PV of incremental revenue requirements and the resulting levelized rate impact to evaluate alternatives in past CPCN applications approved by the BCUC. FortisBC uses this approach because the cash flow of the utilities does not reflect the utilities' revenue requirement or the rate impact to customers.

Further, using the NPV of cash flows to compare feasible alternatives would not result in a difference to the preferred ERP and CIS alternatives. Even if the NPV of cash flows (which is the sum of the total PV of capital and O&M costs/savings over the analysis period) is used for the alternatives evaluation, ERP Alternative 3 and CIS Alternative 4 continue to be superior to (i.e., lower cost than) ERP Alternative 2 and CIS Alternative 3, as shown in Tables 1 and 2 below.

Table 1: ERP Alternatives Analysis Based on NPV of Cash Flows (Capital & O&M Costs/Savings)

Line	Particular	Reference	ERP Alternative 2	ERP Alternative 3	
1	Class Estimate	BCUC IR1 2.1	Class 5	Class 5	Class 4
2	Total PV of Incremental Capital ($ millions)	BCUC IR1 2.1	$ 130.832	$ 100.226	$ 102.694
3	Total PV of Incremental O&M ($ millions)	BCUC IR1 2.1	13.660	(0.792)	0.191
4	**Total PV (or NPV) of Cash Flow ($ millions)**	**Line 2 + Line 3**	**$ 144.492**	**$ 99.433**	**$ 102.885**

Table 2: CIS Alternatives Analysis Based on NPV of Cash Flows (Capital & O&M Costs/Savings)

Line	Particular	Reference	CIS Alternative 3	CIS Alternative 4	
1	Class Estimate	BCUC IR1 5.1	Class 5	Class 5	Class 4
2	Total PV of Incremental Capital ($ millions)	BCUC IR1 5.1	$ 76.374	$ 67.840	$ 75.919
3	Total PV of Incremental O&M ($ millions)	BCUC IR1 5.1	22.128	17.152	19.826
4	**Total PV (or NPV) of Cash Flow ($ millions)**	**Line 2 + Line 3**	**$ 98.502**	**$ 84.992**	**$ 95.745**

FortisBC also notes that although the CPCN Guidelines state the analysis of alternatives "should" contain "a schedule calculating the NPV of the incremental cost and benefit cash flows of the project and feasible alternatives", the guidelines are guidelines only and are meant to be applied in a "flexible and reasonable manner." FortisBC considers that it has reasonably applied a PV analysis which best compares the impact to customers between alternatives, as well as providing an NPV of cash flows in Schedule 10 in Confidential Appendix B of the Application for the preferred alternative. FortisBC considers that it has met the spirit and intent of the guidelines.

Tables 3-1 and 3-2 of the Application provide a summary of the operations and maintenance (O&M), capital, revenue requirements, and rate impact of the feasible alternatives.

2.3 Please provide the supporting calculations (e.g. functional excel spreadsheet), including all inputs and assumptions used to determine the PV of incremental capital, O&M, revenue requirements, and rate impact shown in Tables 3-1 and 3-2 of the Application.

Response:

FortisBC provides Confidential Attachment 2.3 which contains financial schedules in functional excel spreadsheets with inputs and supporting calculations for ERP Alternative 2 (non-SAP Replacement) and ERP Alternative 3 (SAP S/4HANA):

- Confidential Attachment 2.3 – ERP Alternative 2 – FEI – Financial Schedules.
- Confidential Attachment 2.3 – ERP Alternative 2 – FBC – Financial Schedules.
- Confidential Attachment 2.3 – ERP Alternative 3 – FEI – Financial Schedules.
- Confidential Attachment 2.3 – ERP Alternative 3 – FBC – Financial Schedules.

Please refer to Sections 3.3.2.1.2 and 3.3.2.2.2 of the Application for the assumptions related to ERP Alternative 2 and ERP Alternative 3, respectively, which are incorporated into the financial schedules.

FortisBC notes that, while responding to the BCUC and Intervener IRs, it identified some minor errors in the financial models. In particular, a portion of the facilities and change management costs during implementation were inadvertently categorized as O&M costs instead of capital. FortisBC has filed an Errata concurrently with these IR responses reflecting the small changes to the financial analysis which have been summarized in the cover letter to the Errata. The financial schedules provided in Confidential Attachment 2.3 reflect the corrected costs and financial analysis as presented in the Errata.

3.0 Reference: ANALYSIS OF ALTERNATIVES

Exhibit B-1, Section 3.3, p. 32, Section 3.3.2, p. 37, Section 6.1, Table 6-1, p. 102

ERP Alternative 2 Cost Estimate

On page 32 of the Application, FortisBC states that a Request for Expression of Interest (RFEOI) was issued to eight integrators to obtain market input on approach, timelines, complexity, and high-level costs for each ERP alternative. FortisBC states that three responses were received, two for the SAP ERP Alternative and one for the non-SAP ERP Alternative.

On page 36 of the Application, FortisBC states that due to limited responses from non-SAP integrators, the results from the RFEOI, and lack of cost information for the non-SAP ERP Alternative, it decided to progress the cost estimate for the SAP ERP Alternative to an AACE Class 4 level of accuracy through a Request for Proposal (RFP) process and use it as the basis to prepare the cost estimate for the non-SAP ERP Alternative. FortisBC further explains that the Class 4 estimate for the SAP ERP Alternative was adjusted to include estimates of additional costs required to transition to a non-SAP platform. FortisBC states that the cost estimate for the non-SAP ERP Alternative has therefore an AACE Class 5 level of accuracy.

On page 102 of the Application, FortisBC provides Table 6-1: Combined Project Cost Estimate. Table 6-1 shows that the ERP Modernization Project cost is estimated at $110.197 million and the Combined Project at $190.779 million.

3.1 Please discuss how the methodology used to develop the cost estimate for the non-SAP ERP Alternative aligns with the AACE recommended practice for cost estimating.

3.1.1 Please explain whether this methodology and approach to cost estimating is commonly used by FortisBC for projects of this size and nature.

Response:

FortisBC clarifies that the cost estimate for the non-SAP ERP Alternative (ERP Alternative 2) was developed to an AACE Class 5 level of definition[2] using high-level system integrator implementation labour and software licensing costs received through the RFEOI process. Please refer to the response to BCUC IR1 3.2 for further details of these costs.

[2] Consistent with an AACE Class 5 level of accuracy, the non-SAP ERP Alternative was developed using a high-level scope definition, preliminary design maturity, milestone level scheduling, estimation methods primarily based on expert judgement, and project risks and mitigation strategies identified at a preliminary level.

In addition to the implementation costs and annual software licensing costs obtained through the RFEOI process, FortisBC's cost estimation method utilized SAP ERP Alternative 3 to inform the non-SAP Alternative cost estimate. This is because FortisBC did not proceed to the RFP stage for the non-SAP ERP Alternative. Specifically, FortisBC estimated the remaining implementation costs covering labour, additional third-party vendors, infrastructure, facilities, training, and change management by using the SAP ERP Alternative Class 4 estimate as a baseline and adjusting it using expert judgement and experience with technology projects. FortisBC increased the labour, third-party support, training, and change management costs by 25 percent to reflect the added complexity and risk of moving away from an SAP-based environment, while infrastructure and facilities costs were assumed to be comparable. FortisBC's estimation method for the non-SAP ERP Alternative is appropriate because the cost drivers are similar for the SAP and non-SAP ERP options.

FortisBC's approach to cost estimating in this Application is generally consistent with its approach to estimating for other technology/IS projects; however, FortisBC notes that this Project is unique due to its size and organizational impact. While both FEI and FBC have undertaken various infrastructure projects of comparable size (in terms of scope and cost), large-scale IS/technology projects are rare, and the approach to these projects in terms of cost estimating and investigation of alternatives is typically unique to its circumstances. In consideration of the results of the RFEOI and the limited responses from non-SAP integrators, FortisBC determined that the most reasonable and cost-effective approach in this case was to proceed with the RFP process for only the SAP ERP Alternative, resulting in FortisBC having a Class 5 cost estimate for the non-SAP ERP Alternative and a Class 4 cost estimate for the SAP ERP Alternative.

As explained in the Application, the RFEOI results indicated that the non-SAP option would be more costly compared to upgrading to SAP S/4HANA (in addition to being more complex to implement). Further, advancing the cost estimate for the non-SAP ERP Alternative (ERP Alternative 2) to a Class 4 level would require significant development costs but would have little impact on the fundamental analysis of comparing the cost of the feasible alternatives. While advancing to a Class 4 estimate for ERP Alternative 2 could potentially better refine the internal estimates of costs to transition from an SAP platform to a non-SAP platform, these transition costs will always be incremental to the cost of the SAP ERP Alternative. This is because a transition to an entirely new ERP system is not required for the SAP ERP Alternative.

In the case of technology projects such as the current proposed Project, it is typical to use a combination of vendor estimates in RFEOI responses (where available) together with estimates based on expert judgement from internal subject matter experts for early-stage alternative estimates to provide an appropriate comparative assessment. This approach is necessary due to the complexity and breadth of the integration with day-to-day operations, the relative cost comparability of SAP and non-SAP systems, and the awareness of the vendor market of the circumstances (i.e., vendors are aware that FortisBC has widely adopted SAP as the Companies' IS platform). These three factors result in a situation where the willingness for vendors of non-SAP products to invest and participate in a detailed process is low because they are aware that such a process is unlikely to result in an outcome that will reward their investment due to the

complexity and cost of the organizational impact to change to an entirely new system (as observed in FortisBC's RFEOI responses).

3.2 Please provide any cost information on the non-SAP ERP Alternative that FortisBC received from its RFEOI.

Response:

As clarified in the response to BCUC IR1 3.1, the Class 5 cost estimate for the non-SAP ERP Alternative (ERP Alternative 2) provided in Table 3-1 of the Application included the high-level system integrator implementation labour and software licensing costs received through the RFEOI process, with the remainder of the costs developed by FortisBC using the cost estimate for the SAP ERP Alternative (ERP Alternative 3) as a reference point.

In the table below, FortisBC provides a breakdown of the capital and O&M costs provided in Table 3-1 of the Application and separately identifies the costs which were obtained through the RFEOI process and the costs developed by FortisBC.

FortisBC has redacted portions of Table 1 in the public version of these IR responses and filed the unredacted version on a confidential basis as it contains commercially sensitive information.

Table 1: Breakdown of Capital and O&M Costs for ERP Alternative 2

Cost Item	Source	Cost Estimate ($ millions)
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
Training & Change Management	FortisBC Estimate	4.1
Facilities	FortisBC Estimate	4.4
[redacted]	[redacted]	[redacted]
Contingency	FortisBC Estimate	32.9
Total		**164.2**

3.2.1 Please explain, with rationale, why FortisBC did not use the costs received from the non-SAP ERP integrator to develop the AACE Class 5 cost estimate of the non-SAP ERP Alternative.

Response:

Please refer to the response to BCUC IR1 3.1.

3.3 Please explain the level of effort and cost that would be required from FortisBC to develop an AACE Class 5 cost estimate for the non-SAP ERP Alternative using cost information from integrators.

Response:

The cost estimate presented in Table 3-1 for the non-SAP ERP Alternative was developed at an AACE Class 5 level using information obtained through the RFEOI process from system integrator respondents. Please also refer to the responses to BCUC IR1 3.1 and 3.2.

On page 37 of the Application, FortisBC describes the assumptions made to develop the AACE Class 5 cost estimate for the non-SAP ERP Alternative. FortisBC lists the adjustments made for the additional costs to transition to a non-SAP platform, including:

- extending the implementation period by one year;
- Increasing the internal and third-party implementation labour costs by 25 percent;
- Increasing change management and training costs by 25 percent;
- Increasing project contingency to 25 percent; and
- increasing incremental support costs by 25 percent.

3.4 Please clarify whether the four-year implementation period used to estimate the implementation costs for the non-SAP ERP Alternative is based on information

received from the RFEOI or any other process such as an RFP. If not, please explain why not.

Response:

The four-year implementation period used to estimate the implementation costs for the non-SAP ERP Alternative (ERP Alternative 2) was not based on information received from the RFEOI.

As explained in the response to BCUC IR1 3.1, the RFEOI response for the non-SAP ERP Alternative only provided high-level estimates for system integrator labour, implementation and software licensing costs. The RFEOI did not include FortisBC internal labour, third-party vendor, infrastructure, facilities, training, or change management costs. With no vendor-provided schedules for these items, FortisBC extended the implementation period to four years for the non-SAP ERP Alternative (compared to three years for the SAP ERP Alternative) to account for the greater level of change and complexity that would be required to move to a non-SAP ERP system. FortisBC used the SAP ERP Alternative's implementation approach and timelines as a reference, and then applied adjustments based on expert judgement and experience with technology projects.

FortisBC also notes that, all else equal, completing the implementation of the non-SAP ERP Alternative over a three-year period (consistent with the implementation period for the SAP ERP Alternative) would slightly increase the levelized rate impacts for FEI and FBC (i.e., increase of approximately 0.08 percent for FEI and increase of approximately 0.07 percent for FBC).[3] Therefore, changing the implementation period to three years would not change the results of the comparative financial evaluation between ERP Alternative 2 and ERP Alternative 3.

3.5 Please expand on the basis used for the increases for each of the following, including how the markup percentage was determined, and explain how the estimates were determined to be reasonable:

a) the internal and third-party implementation labour costs;

b) the change management and training costs;

c) the contingency; and

d) FortisBC internal resources.

[3] The increase in the levelized rate impact when the implementation period is reduced from 4 years to 3 years is due to the assets being included in FEI's and FBC's rate bases one year earlier, resulting in the initial rate impacts due to the project occurring one year earlier. This would lead to a higher present value levelized rate impact over the analysis period.

Response

FortisBC provides further explanation for each of the requested items below.

Internal and Third-Party Implementation Labour Costs

FortisBC notes that the cost increases were incorrectly grouped together on page 37 of the Application when describing the adjustments for internal and third-party implementation labor costs. The correct increases are 50 percent for third-party implementation labour costs and 25 percent for internal implementation labour costs (as opposed to 25 percent for both types of costs). The correction does not affect the analysis in the Application.

Third-Party Implementation Costs

The estimated third-party implementation costs fall primarily into four categories: (1) third-party vendor support to implement interface changes; (2) ERP software vendor professional services support; (3) performance testing support; and (4) independent third-party audit support. The 50 percent increase was based on a review by FortisBC's subject matter experts of the estimated costs for each of these third-party implementation activities for the SAP ERP Alternative, with corresponding adjustments made for the differences in the non-SAP ERP Alternative scope and complexity.

The resulting aggregate adjustment of 50 percent to third-party implementation labour costs is reasonable given that the non-SAP ERP Alternative would require the replacement or redevelopment of a materially larger proportion of integrations, custom interfaces, and technical components compared to the SAP ERP Alternative. Unlike the SAP ERP Alternative, where FortisBC can leverage existing integrations and established SAP tooling, the non-SAP ERP Alternative introduces a higher likelihood of scope growth, rework, and additional vendor effort as detailed design progresses. At the Class 5 stage, applying a higher adjustment to third-party costs is consistent with industry practice for early stage estimates for IS projects of this nature involving new platforms and significant integration complexity.

The table below indicates how each category was adjusted.

Table 1: Breakdown of Third-Party Implementation Cost Adjustments for ERP Alternative 2

Category	% of Third Party Cost Total for SAP Alternative (A)	Estimated Adjustment for non-SAP Alternative (B)	% of Total Third Party Adjustment for SAP Alternative (A x B)	Basis of Estimate Adjustment
Interface Support	48%	81%	39%	All interfaces to third-party systems would need to be rebuilt for a new non-SAP application, unlike the SAP ERP Alternative where only a small number would need to be rebuilt with most just needing updates or no change at all.

Category	% of Third Party Cost Total for SAP Alternative (A)	Estimated Adjustment for non-SAP Alternative (B)	% of Total Third Party Adjustment for SAP Alternative (A x B)	Basis of Estimate Adjustment
ERP Software Support	27%	0%	0%	Similar level of professional services support from the non-SAP software vendor as with SAP professional services for the SAP ERP Alternative.
Audit Support	21%	50%	11%	The project duration is estimated to increase by a period of 1 year and the cost for an independent third-party auditor would increase accordingly.
Performance Test Support	4%	0%	0%	Performance testing effort would be similar for an SAP and a non-SAP system.
TOTAL	**100%**		**50%**	

Internal Implementation Labour Costs

The internal implementation labour costs were estimated to increase by 25 percent due to increased effort for process redesign, testing and post go-live support as the technology and business processes will be new to FortisBC and will require more effort than transitioning to a new version of SAP. FortisBC arrived at a 25 percent increase by applying a multiplier to the internal implementation labour effort by phase of the project, with the multiplier based on the type of work being performed at each phase and the estimated impact that switching to a new technology would have on this work. The table below indicates how the internal labour effort was adjusted for each phase of the project.

Table 2: Breakdown of Internal Implementation Labour Cost Adjustments for ERP Alternative 2

Project Phase	% of Total Labour Cost for SAP Alternative (A)	Estimated Adjustment for non-SAP Alternative (B)	% of Total Labour Adjustment for SAP Alternative (A x B)	Basis of Estimate Adjustment
Prepare and Plan	9%	0%	0%	No significant impact of new technology for planning.
Design	9%	50%	5%	Significant impact of new technology on design phase of project, which involves activities such as mapping FortisBC processes to application functionality, process redesign and data mapping.
Build	25%	0%	0%	Minimal impact to FortisBC internal resources during build phase of the project (impact greater on third-party vendors as described previously).
Test	21%	30%	6%	More complex testing effort is required as redesigned processes need to be tested with system configuration. More likelihood of process gaps being identified at this time which drives rework and additional testing.

Project Phase	% of Total Labour Cost for SAP Alternative (A)	Estimated Adjustment for non-SAP Alternative (B)	% of Total Labour Adjustment for SAP Alternative (A x B)	Basis of Estimate Adjustment
Support and Stabilization	36%	40%	14%	Greater volume of user issues and support required given magnitude of process and technology changes on end users is greater.
TOTAL	**100%**		**25%**	

Change Management and Training Costs

For the non-SAP platform, change management and training would be higher because FortisBC has been using SAP for over 20 years, with established SAP-based business processes, user familiarity and IT support experience. The shift to a non-SAP ERP will have a greater impact on business users, requiring more extensive training and communications, and is expected to face greater resistance from users compared to moving to a newer version of SAP. Based on these factors, a 25 percent increase was tied to the increase in change management and training costs, using the same approach as described above for internal implementation labour costs. This increase reflects the additional training cycles, expanded communications, and extended stabilization support expected when introducing a fundamentally different ERP platform to a workforce with long-standing SAP experience.

Contingency

FortisBC determined that a 25 percent contingency for the non-SAP ERP Alternative (as compared to the 15 percent contingency for the SAP ERP Alternative) is reasonable given the increased degree of uncertainty with regard to the risk, scope and cost of moving to a non-SAP ERP, which involves complex integrations to many third-party applications that would need to be rebuilt, and requires a high degree of process redesign, change management and training.

FortisBC Internal Resources (under the category of Incremental Support Costs)

For item (d) in the question, FortisBC assumes that the BCUC is referring to the internal resources discussed within the incremental support costs category on page 37 of the Application.

The 25 percent increase in incremental FortisBC internal support reflects the need to hire new employees and contractors to support the new technology and processes, in addition to retraining existing staff. Retraining experienced SAP staff to achieve proficiency in a non-SAP system will take time and require additional resources, including staff with expertise in the new technology for training and support. Additional staff and contractors will also be required to support adoption of the new processes as the change will impact all business units at FortisBC concurrently. The 25 percent increase accounts for the additional staff that will be required, using a blended rate for contractors and employees.

4.0 Reference: ANALYSIS OF ALTERNATIVES

Exhibit B-1, Section 3.4,2, Table 3-4, p. 43, Section 3.4.6, Table 3-9, p. 52

ERP Modernization Project Alternatives Evaluation Criteria

On page 43 of the Application, FortisBC provides Table 3-4: Evaluation Weighting Criteria. Each criterion and sub-criterion is assigned a weight used in the assessment of alternatives for the ERP Modernization Project. FortisBC also states that it developed scoring definitions for each of the main criteria using a scale from 1 to 3.

4.1 Please describe the methodology used to assign weightings to each of the evaluation sub-criteria, including whether the weightings were informed by management judgement, stakeholder input, prior project experience, industry benchmarks, or other supporting analysis. Please provide the rationale for the choice of inputs into these weightings.

Response:

FortisBC applied a structured evaluation methodology to establish the evaluation criteria, associated sub-criteria, and their respective weightings. Evaluation criteria framework and weightings were determined through collaborative discussions and iterative reviews with FortisBC's subject matter experts representing business, technical, financial, and change management perspectives. The determination of criteria and weightings was informed by a combination of management judgment, internal stakeholder input, and prior project experience, including lessons learned from comparable ERP and CIS modernization initiatives within the utility sector. Collectively, these inputs were used to ensure that the evaluation emphasized factors most relevant to successful project delivery, risk mitigation, and customer rate impacts.

At the criteria level, weightings were assigned based on the relative importance of each criterion in providing differentiation between the feasible alternatives, with consideration given to implementation risk, long-term operational suitability, and financial impacts. At the sub-criteria level, weightings were assigned to support a balanced and transparent assessment within each criterion and to enable consistent scoring across alternatives.

The rationale for selecting each category and sub-category, and their respective weightings, is provided below.

Criteria 1: Ability to Support Current and Future Requirements (30 percent)

Given the importance of confirming that each alternative can sustainably support FortisBC's current and future business requirements, this criterion was assigned a 30 percent weighting. While all feasible alternatives were expected to meet baseline functional requirements, differences remained to the extent to which each alternative would support scalability, flexibility, analytics, and regulatory adaptability.

Further explanation of the weightings assigned to the sub-criteria is provided as follows:

- **Operations Analytics and Reporting**, and **Flexibility and Scalability** were each assigned weightings of 30 percent, reflecting their importance to FortisBC's ongoing operations and future decision making.
- **Adaptability to Regulatory Changes:** The 20 percent weighting reflects that a solution must have the ability to adapt quickly to the changing environment's regulatory requirements (e.g., financial controls, reporting and cybersecurity requirements). While this criterion is important, the previously discussed sub-criteria were weighted higher because it is expected that most leading ERP and CIS solutions would have some ability to provide automated updates to reflect new or changing regulatory requirements.
- **Mobile Enablement** and **Innovation** were each assigned a 10 percent weighting to reflect their relative importance compared to the other sub-criteria within this category. While both mobile enablement and innovation are desired capabilities, they are not mandatory.

Criteria 2: Project Implementation Risk (35 percent)

Given the scale and complexity of the project, this criterion was assigned a weighting of 35 percent to explicitly capture the delivery risks associated with the ERP Modernization and CIS Replacement Projects, including organizational, technical, and execution-related risks.

Further explanation of the weightings assigned to the sub-criteria is provided as follows:

- **Organizational Change** was assigned a 35 percent weighting based on FortisBC's experience and external utility feedback indicating that organizational readiness and change capacity are among the most significant risk drivers for large enterprise implementations.
- **Project Size and Complexity** and **Resourcing** were each assigned a weighting of 25 percent, reflecting their role as material standard risk indicators for large technology projects.
- **Training** was assigned the lowest weighting at 15 percent because, while the ability to successfully train employees to use the new ERP and CIS systems is critical to operational effectiveness and is a key enabling component of change management, the risks associated with training are more easily mitigated than risks arising from the other sub-criteria.

Criteria 3: Financial (35 percent)

Given the importance of understanding and comparing customer rate impacts associated with each alternative, this category was assigned a 35 percent weighting. Consistent with the Project Implementation Risk criterion, the impact to customer rates (Financial criterion) is a critical

consideration when comparing feasible alternatives. Therefore, both of these criteria were assigned the highest weightings at 35 percent each.

- The **Levelized Rate Impact** sub criterion was selected as it directly reflects the long-term cost implications for customers.

On page 52 of the Application, FortisBC provides Table 3-9: Weighted Scoring [scoring results for the non-SAP and SAP ERP Alternatives]. The table shows that Criteria 1: Ability to Support Current and Future Requirements, scores the same for the two feasible project alternatives.

4.2 Please explain, with rationale, how FortisBC determined that a scale from 1 to 3 was the most appropriate for scoring the two feasible alternatives for the ERP Modernization Project. In the response, please explain:

a) Whether other scales were considered (e.g. 1 to 5) and if so, why they were not suitable.

b) Whether the use of a different scale (e.g. 1 to 5) would result in different scoring of each criterion, specifically for Criteria 1.

c) How the chosen scale (i.e. 1 to 3) compares to other FortisBC projects.

Response:

FortisBC developed the evaluation scoring scale through internal discussions with subject matter experts. While other scales (e.g., 1 to 5) were considered, FortisBC determined that a 1 to 3 scale was reasonable because it provides sufficient differentiation between alternatives where there are meaningful differences.

While other scales could have potentially been used, such as a scale from 1 to 5, they would not have resulted in materially different relative rankings of the alternatives, as there is not a sufficient level of granular or quantitative information to differentiate the alternatives further than the level that is achieved through the selected scale of 1 to 3. Specifically for Criteria 1, the relative assessment and ranking of ERP Alternatives 2 and 3 (and CIS Alternatives 3 and 4) would have remained essentially unchanged under a different scoring scale. And, to the extent that a different scale resulted in minor differences to the scoring of each alternative under Criteria 1, the end result when considering all three criteria would be the same – ERP Alternative 3 and CIS Alternative 4 would be the preferred alternatives, as they would continue to score higher (i.e., better) under Criteria 2 and 3.

While FortisBC projects may use different scales depending on project scope, maturity, and available information, the methodology employed to arrive at the three-point scale is consistent with other FortisBC technology projects.

4.3 Please discuss how each of the criteria and sub-criteria in Table 3-4 were selected to show trade-offs between the two feasible ERP Modernization Project alternatives.

Response:

FortisBC selected the criteria and sub-criteria in Tables 3-4 and 4-4 to support a structured comparison of the two feasible ERP Modernization and CIS Replacement Project alternatives by confirming baseline capability and identifying areas where material trade-offs were expected to arise.

As discussed in the response to BCUC IR1 4.1, in Criteria 1 (Ability to Support Current and Future Requirements), given the importance of confirming that each alternative can sustainably support FortisBC's current and future business requirements, FortisBC anticipated that all feasible alternatives would score similarly in this criterion overall, with potential minor differences in scoring occurring in the sub-criteria. However, and as shown in Tables 3-6 and 4-6, all feasible alternatives scored the same, as all feasible alternatives are modern systems that are capable of providing superior levels of operations analytics and reporting, mobile enablement, innovation, flexibility and scalability, adaptability to regulatory changes and, in the case of the CIS Replacement Project alternatives, customer experience.

FortisBC anticipated that Criteria 2 (Project Implementation Risk) would yield the most variation in scoring and accordingly selected sub-criteria that would identify key differences in feasible alternatives. As discussed in the Application, project implementation risk is a key differentiator between the feasible alternatives as it would be expected that moving to a completely new (and unfamiliar) ERP and CIS platform would create greater challenges, particularly in areas such as resourcing, training and organizational change (all of which are sub-criteria of Criteria 2). ERP Alternative 2 contemplates replacing a complex, existing platform that has been deployed at FortisBC for more than 25 years, whereas ERP Alternative 3 proposes to upgrade and modernize the existing ERP platform.

As shown in Table 3-7, the evaluation of ERP Alternative 2 against ERP Alternative 3 yielded a lower score in all Project Implementation Risk sub-criteria, demonstrating that ERP Alternative 2 has greater project implementation risk. Similarly for the CIS Replacement Project, CIS Alternative 3 scores worse in all sub-criteria with the exception of Project Size and Complexity. The reason that both CIS Replacement Project alternatives scored the same in Project Size and

Complexity (compared to the ERP Modernization Project alternatives where ERP Alternative 2 scored worse that ERP Alternative 3) is because, in the case of the CIS Replacement Project, both alternatives require replacing a legacy system with a new/different system. The Project Size and Complexity sub-criterion result demonstrates the similar scope of a full CIS replacement, whereas the other sub-criteria results show that moving to an SAP CIS is superior with regard to resourcing, training and organizational change, recognizing that FortisBC will be able to leverage its existing skillsets, knowledge and understanding of SAP when implementing and operating an SAP CIS for FBC.

Finally, Criteria 3 (Financial – Impact on Customer Rates) compares the differences in levelized rate impact between the alternatives, reflecting tradeoffs in the financial impact to customers between the feasible alternatives.

C. CIS REPLACEMENT PROJECT

5.0 Reference: ANALYSIS OF ALTERNATIVES

Exhibit B-1, Section 4.3.2, Table 4-1, p. 62, Table 4-2, p. 64, BCUC Certificate of Public Convenience and Necessity Guidelines, p. 5

Financial Analysis of CIS Replacement Project Alternatives

On page 62 of the Application, FBC provides Table 4-1, the financial summary of CIS Alternative 3 (non-SAP CIS Alternative). The table includes a cost breakdown of the total PV of different cost categories and the associated rate impact. The financial analysis of the non-SAP CIS Alternative is based on an AACE Class 5 cost estimate.

On page 64 of the Application, FBC provides Table 4-2, showing the financial summary of CIS Alternative 4 (SAP CIS Alternative). The table includes a cost breakdown of the PV of different cost categories and the associated rate impact. The financial analysis of the SAP CIS Alternative is based on an AACE Class 4 cost estimate.

5.1 Please provide the AACE Class 5 estimate for the SAP CIS Alternative and the basis for this estimate. If not available, please explain why such an estimate was not prepared.

5.1.1 If the AACE Class 5 estimate is prepared, please provide a version of Table 4-2 showing the financial analysis for the SAP CIS Alternative using the AACE Class 5 estimate.

5.1.2 Please discuss how the use of an AACE Class 5 estimate for the non-SAP CIS Alternative and the SAP CIS Alternative would affect the comparability of the two alternatives relative to the use of the Class 4 estimate for those two alternatives

Response:

Please refer to Table 1 below summarizing the estimated incremental capital and O&M costs for CIS Alternative 4 (SAP CIS Alternative) based on an AACE Class 5 estimate, including the resulting PV of incremental revenue requirement and levelized rate impact to FBC's customers over a 13-year analysis period in the same format as Table 4-2 of the Application. The financial analysis for the Class 5 estimate is based on the same 13-year analysis period as the Class 4 estimate that was presented in Table 4-2 of the Application. Table 1 below also provides the Class 5 estimate for CIS Alternative 3 (non-SAP CIS Alternative) and the Class 4 estimate for CIS Alternative 4 (as-filed) for comparative purposes.

FortisBC notes that, while responding to the BCUC and Intervener IRs, it identified some minor errors in the financial models. In particular, a portion of the facilities and change management costs during implementation were inadvertently categorized as O&M costs instead of capital. FortisBC has filed an Errata concurrently with these IR responses reflecting the small changes to

the financial analysis which have been summarized in the cover letter to the Errata. Table 1 below and subsequent IR responses reflect the same corrections as presented in the Errata, ensuring facilities and change management costs are categorized as capital.

The Class 5 estimate for CIS Alternative 4 is based on the quotes received from the system integrator and software license costs as part of the SAP S/4HANA implementation information. They reflect high-level vendor pricing, whereas the Class 4 estimate presented in the Application incorporated additional details developed together with the vendor for these components.

Other assumptions, including FortisBC's labour, facilities, and infrastructure costs during implementation as well as post-implementation incremental support (with the exception of the software licensing costs), reduction in on-premise infrastructure, and savings from improved operational efficiencies are not vendor-specific. Therefore, these cost components were estimated primarily using the same internal cost estimation methods that were used for the Class 4 cost estimate. As such, the results are similar for the Class 4 and Class 5 estimates.

Table 1: Financial Summary of Class 5 Estimate for CIS Alternative 4 Compared to CIS Alternative 3 (Class 5) and CIS Alternative 4 (Class 4) from the Errata to the Application

	CIS Alternative 3	CIS Alternative 4	
Class Estimate	Class 5	Class 5	Class 4 (As-Filed in Errata)
Total PV of Incremental Capital ($ millions)	76.374	67.840	75.919
Total PV of Incremental O&M ($ millions)	22.128	17.152	19.826
FBC Total PV of Incremental Revenue Requirement over 13-years ($ millions)	107.509	93.395	104.723
FBC Levelized Rate Impact over 13-years (%)	2.41%	2.09%	2.34%

The financial analysis for the AACE Class 5 estimate for CIS Alternative 4 includes the following assumptions:

- **CIS Plus to SAP S/4HANA Implementation Costs:** FBC used the system integrator and software licenses costs provided by system integrators as the primary basis for the implementation costs. FBC obtained quotes and high-level project schedules from system integrators to replace CIS Plus with SAP S/4HANA. Additional implementation costs were then estimated and added, including labour costs, software license costs, facilities and infrastructure costs. The estimated capital and O&M costs for the implementation is approximately $73.9 million and $5.7 million, respectively.
- **Incremental Support Costs:** FBC estimates an increase in support costs required to cover annual subscription costs, which include a managed service fee for the new SAP CIS. However, these costs would be offset by the elimination of the annual fees required to operate the existing CIS Plus. CIS Plus is operating under limited support with no third-party application support, but is supported internally by IS for minimal application maintenance. FBC assumes a single SAP support team would provide support for both

the S/4HANA ERP system and the new FBC S/4HANA CIS, and that the size of the SAP support team would increase to accommodate the additional support requirements for the FBC S/4HANA CIS. Over the post-implementation period, FBC estimates that the annual O&M costs would increase by an average of approximately $2.1 million. FortisBC notes that, as discussed above, except for the software licencing costs, all assumptions for the post-implementation incremental support costs are the same between the Class 5 and Class 4 estimates.

- **Reduction in On-premise Infrastructure Costs:** The new S/4HANA CIS would be implemented as a cloud-based platform and therefore the requirements for on-premise servers would be reduced. FBC estimates a decrease in the annual capital and O&M costs of approximately $33 thousand and $15 thousand, respectively, over the post-implementation period. The assumptions (and resulting savings) for the post-implementation reduction in on-premise infrastructure costs are the same between the Class 5 and Class 4 estimates.
- **Operational Efficiencies and Cost Savings:** FBC has identified increased customer service productivity and cost savings that the new S/4HANA CIS would enable. FBC estimates a decrease in annual O&M costs of approximately $159 thousand over the post-implementation period. These estimated efficiencies and cost savings at the Class 5 level are consistent with the Class 4 estimate provided in the Application.

As shown in Table 1 above, the Class 5 estimate for CIS Alternative 4 results in lower SAP S/4HANA costs than the Class 4 estimate based on the quotes received for system integrator and software license costs. Therefore, and as shown in Table 1 above, at a Class 5 level of estimate, CIS Alternative 4 (SAP CIS Alternative) continues to have a lower PV of incremental revenue requirement ($14.1 million less for FBC) and a lower rate impact (0.32 percent less for FBC) than CIS Alternative 3.

Page 5 of the CPCN Guidelines provides that the analysis of alternatives must contain “a schedule calculating the net present values [NPV] of the incremental cost and benefit cash flows of the project and feasible alternatives, and justification of the length of the term and discount rate used for the calculation.”

5.2 Please provide a high-level summary of the tangible and quantifiable benefits for each of the feasible alternatives, if any.

Response:

The two feasible alternatives share the same type of tangible and quantifiable benefits, which include reductions in annual on-premise infrastructure costs, and operational efficiencies and cost savings.

For both CIS Alternative 3 (non-SAP CIS Alternative) and CIS Alternative 4 (SAP CIS Alternative), over the 13-year analysis period, these benefits equate to $0.048 million in annual incremental capital and O&M savings due to reductions in on-premise infrastructure costs, and $0.159 million in annual O&M savings due to operational efficiencies.

Please refer to Table 1 below summarizing the estimated tangible and quantifiable costs and benefits as identified in Sections 4.3.2.1.2 and 4.3.2.2.2 for CIS Alternative 3 and CIS Alternative 4, respectively, which include:

- Total implementation costs;
- Annual incremental support costs;
- Reduction in annual on-premise infrastructure costs;
- Operational efficiencies and cost savings; and
- Incremental revenue requirement and levelized rate impact.

Table 1: Summary of Estimated Tangible and Quantifiable Costs/Benefits for CIS Alternative 3 (non-SAP CIS) and CIS Alternative 4 (SAP CIS)[4]

		CIS Alternative 3 (non-SAP)	CIS Alternative 4 (SAP S/4HANA)	Difference (CIS 4 - CIS 3)
Implementation Costs				
Capital (During Implementation Period)		$ 83.181	$ 82.681	$ (0.500)
O&M (During Implementation Period)		$ 5.252	$ 5.252	-
Total ($ millions)		**$ 88.433**	**$ 87.933**	**$ (0.500)**
Incremental Support Costs / (Savings)				
Capital (Average over 13-year Analysis Period)		$ -	$ -	$ -
O&M (Average over 13-year Analysis Period)		2.947	2.632	(0.316)
Total ($ millions)		**$ 2.947**	**$ 2.632**	**$ (0.316)**
Reduction in On-premise Infrastructure Costs / (Savings)				
Capital (Average over 13-year Analysis Period)		$ (0.033)	$ (0.033)	$ -
O&M (Average over 13-year Analysis Period)		(0.015)	(0.015)	$ -
Total ($ millions)		**$ (0.048)**	**$ (0.048)**	**$ -**
Operational Efficiencies and Costs / (Savings)				
Capital (Average over 13-year Analysis Period)		$ -	$ -	$ -
O&M (Average over 13-year Analysis Period)		(0.159)	(0.159)	-
Total ($ millions)		**$ (0.159)**	**$ (0.159)**	**$ -**
Revenue Requirement & Levelized Rate Impact				
Total PV of Incremental Revenue Requirement over 13-years ($ millions)	FBC	$ 107.509	$ 104.723	$ (2.786)
Levelized Rate Impact over 13-years (%)	FBC	2.41%	2.34%	-0.06%

Overall, based on the estimated implementation costs and post-implementation savings, CIS Alternative 4 will result in a slightly lower rate impact to FBC customers than CIS Alternative 3. The financial analysis for CIS Alternatives 3 and 4 is largely similar, with differences primarily arising from the need to develop new interfaces and a standalone FBC CIS support team for the non-SAP CIS Alternative 3, as discussed in Section 4.3.2 of the Application.

5.2.1 Please explain why FortisBC conducted a PV analysis as opposed to an NPV analysis for the financial comparison of the CIS Replacement Project alternatives.

Response:

Please refer to the response to BCUC IR1 2.2.1.

[4] As discussed in the response to BCUC IR1 5.1, while responding to the BCUC and Intervener IRs, FortisBC identified some minor errors in the financial models. FortisBC has filed an Errata concurrently with these IR responses reflecting the small changes to the financial analysis which have been summarized in the cover letter to the Errata. Table 1 reflects the corrected costs and financial analysis as presented in the Errata.

5.2.2 Please discuss whether conducting an NPV analysis would change the evaluation of the CIS Replacement Project alternatives. If not, please explain why not.

Response:

Please refer to the response to BCUC IR1 2.2.1.

Tables 4-1 and 4-2 of the Application provide a summary of the O&M, capital, revenue requirements, and rate impact of the feasible CIS alternatives.

5.3 Please provide the supporting calculations (e.g. functional excel spreadsheet), including all inputs and assumptions used to determine the PV of incremental capital, O&M, and revenue requirements costs, and rate impact shown in Tables 4-1 and 4-2 of the Application.

Response:

FortisBC provides Confidential Attachment 5.3 which contains financial schedules in functional excel spreadsheets with inputs and supporting calculations for CIS Alternative 3 (Replace with Non-SAP Solution) and CIS Alternative 4 (Replace with SAP S/4HANA):

- Confidential Attachment 5.3 – CIS Alternative 3 – FBC – Financial Schedules.
- Confidential Attachment 5.3 – CIS Alternative 4 – FBC – Financial Schedules.

Please refer to Sections 4.3.2.1.2 and 4.3.2.2.2 of the Application for the assumptions related to CIS Alternative 3 and CIS Alternative 4, respectively, which are incorporated into the financial schedules.

FortisBC notes that, while responding to the BCUC and Intervener IRs, it identified some minor errors in the financial models. In particular, a portion of the facilities and change management costs during implementation were inadvertently categorized as O&M costs instead of capital. FortisBC has filed an Errata concurrently with these IR responses reflecting the small changes to the financial analysis which have been summarized in the cover letter to the Errata. The financial schedules provided in Confidential Attachment 5.3 reflect the corrected costs and financial analysis as presented in the Errata.

6.0 Reference: ANALYSIS OF ALTERNATIVES

Exhibit B-1, Section 4.3, pp. 57-58, 61-62, Section 6.1, Table 6-1, p. 102

CIS Alternative 3 Cost Estimate

On pages 57 to 58 of the Application, FBC states:

> FBC initiated a formal process and selected a third-party firm to assist in documenting its detailed CIS business requirements and began assessing a short-list of potential CIS solutions to include in an RFP. FBC also considered the ERP RFEOI results discussed in Section 3.3, including the complexity of implementing non-SAP ERP options as compared to upgrading to SAP S/4HANA, and the potential to align the implementation timelines of both the ERP Modernization Project and the CIS Replacement Project to mitigate disruption to the Companies and reduce overall implementation timelines and costs.

On page 61 of the Application, FBC states:

> As discussed below, CIS Alternative 3 was developed to an AACE Class 5 level of accuracy (compared to the preferred alternative – CIS Alternative 4 which was developed to a Class 4 level of accuracy). Although the classes of estimate used to compare CIS Alternatives 3 and 4 are different, using a Class 5 cost estimate for CIS Alternative 3 is reasonable in this case. While advancing the cost estimate for CIS Alternative 3 to a Class 4 level would better refine the costs, it would require significant development costs and would have little impact on the fundamental analysis of comparing the cost of replacing FBC's existing CIS with a non-SAP CIS versus replacing the existing CIS with SAP S/4HANA.

On page 102 of the Application, FortisBC provides Table 6-1: Combined Project Cost Estimate. Table 6-1 shows that the CIS Replacement Project cost is estimated at $66.811 million and the Combined Project at $190.779 million.

6.1 Please explain whether the methodology and approach used to develop the cost estimate for the non-SAP CIS Alternative is commonly used by FBC for projects of this size and nature.

Response

As explained in the response to BCUC IR1 3.1, FortisBC's approach to cost estimating in this Application is generally consistent with its approach to estimating for other technology/IS projects; however, the proposed Project, and particularly the FBC CIS Replacement Project component, is unique due to its size and organizational impact. The FBC CIS Replacement Project is a large, complex IS project that impacts the front-line customer delivery experience and billing. FBC has not undertaken a replacement of its customer information system for many years (FBC has been utilizing the legacy CIS Plus for over 25 years). In addition to the size and organizational impact

of the CIS Replacement Project, a key consideration when assessing options to replace the legacy CIS Plus system was the level of integration of FBC's IS software environment with FEI and with SAP generally. As explained on page 14 of the Application, in 2017, FortisBC launched the SAP Integration Project (Project One), a corporate-wide initiative to migrate FEI and FBC onto a single, unified SAP platform. The integration included the consolidation of the HR, Finance, and Supply Chain modules. The legacy CIS Plus is one of only a few remaining applications that FortisBC has not migrated to SAP, as FBC is already using SAP for the majority of its day-to-day business operations, and FEI is using SAP for essentially all of its business operations (including CIS related functions).

With the above considerations in mind, similar to the non-SAP ERP Alternative, FBC developed the cost estimate for the non-SAP CIS Alternative to an AACE Class 5 level of definition. However, in the case of the non-SAP CIS Alternative, FBC did not undertake an RFEOI process to obtain high-level system integrator implementation labour and software licensing costs from a non-SAP vendor. FBC considers its approach reasonable because initiating an RFEOI specifically for the non-SAP CIS Alternative would have had little impact on the financial analysis. FBC estimates that the majority of the capital and O&M costs to implement a non-SAP CIS would be approximately the same as implementing an SAP CIS and, once implemented, the support and licensing costs would be similar, as FBC would only implement a non-SAP CIS that could meet FBC's baseline requirements for any new CIS. The primary areas where the costs differ between a non-SAP and SAP CIS are the incremental O&M costs for a non-SAP CIS that would be required to onboard, train, build and operate a new, standalone FBC CIS application support team. These costs will always be incremental/additional to an SAP CIS alternative. Thus, FBC determined that it was more cost-effective to develop the Class 5 estimate for the non-SAP CIS Alternative using internal subject matter expert judgement with reference to the information/costing obtained for the SAP CIS Alternative.

In addition to being unnecessary (as described above), it would not be practical to develop and execute an RFEOI to obtain vendor cost information at this time, as issuing an RFEOI requires substantial effort and cost. This effort includes securing resources, identifying participating vendors, coordinating stakeholders, creating and issuing the request, managing clarifying questions, reviewing submissions, and attending demonstrations and reference calls. Once the RFEOI is complete, an additional period of approximately one month is needed to finalize the remaining inputs to complete the costing. The table below outlines the activities and estimated timelines to complete an RFEOI of this type, based on FortisBC's prior experience.

Activities	Timeline (approx.)
Establish stakeholders and confirm RFEOI resources	1 month
Create and review the RFEOI (scope of work, presentations, evaluation criteria, requirements)	1 month
Issue RFEOI and receive submissions; answer questions from vendors	1 month
Review responses and attend vendor presentations	1 month

Activities	Timeline (approx.)
Provide and review clarifying questions to vendors; attend references calls & complete final evaluation	1 month
Finalize remaining inputs to complete the costing	1 month
Total	**6 months**

In total, FortisBC estimates that completing the RFEOI costing process would take approximately 6 months. FortisBC estimates that the incremental cost to complete this work would be between $200 thousand and $300 thousand, including internal labour, external consulting support, and related expenses.

In addition, it is unlikely that the RFEOI would attract a high level of vendor participation from non-SAP vendors, as was experienced during the RFEOI process for the ERP Modernization Project. It is widely known that FEI and FBC have used SAP as their respective ERP system for decades, individually and then together as one combined system beginning in 2018. FortisBC expects that non-SAP vendors are unlikely to spend the time and effort to participate in an RFEOI at this stage, particularly given FortisBC's proposed plan to implement SAP S/4HANA (i.e., the proposed alternative for the ERP Modernization Project component of the Combined Project). Therefore, FortisBC does not consider that undertaking an RFEOI at this time would be practical or likely to provide insight into the alternatives analysis.

6.2 Please provide any cost information on the non-SAP CIS Alternative that FBC received from vendors.

6.2.1 If FBC received cost information from vendors, please explain, with rationale, why FBC did not use this information to develop the AACE Class 5 cost estimate of the non-SAP CIS Alternative.

Response:

Please refer to the response to BCUC IR1 6.1.

6.3 Please explain the level of effort and cost that would be required from FBC to develop an AACE Class 5 cost estimate for the non-SAP CIS Alternative using cost information from vendors.

Response:

Please refer to the response to BCUC IR1 6.1.

On page 62 of the Application, FBC states:

> However, under CIS Alternative 3 [non-SAP CIS Alternative], a new interface between the non-SAP CIS and FortisBC's SAP-based ERP system would be needed to support various business activities that require exchange of data between both systems, such as finance, customer service, and human resources. As such, FBC estimates CIS Alternative 3 would require an additional capital cost of approximately $500 thousand to develop and implement the new interface.

6.4 Please explain, with supporting rationale, how the additional capital cost of approximately $500 thousand for the new interface between non-SAP CIS and SAP-based ERP system was determined. In the response, please identify the key cost drivers and assumptions underlying the estimate.

Response:

The estimated capital cost of approximately $500 thousand is comprised of the expected cost needed to complete detailed requirements definition, interface design, development, testing, and deployment of the interface.

FBC developed the estimate by conducting a high-level assessment of the type and volume of data required to support core business functions, including finance, customer service, and human resources between the CIS and ERP system. Based on this assessment, FBC evaluated the relative complexity of the integration, which includes financial transactions, synchronization of customer master data, and billing rates, so that it could compare those requirements to interface integrations of similar complexity that were recently implemented for other FortisBC projects. For example, a similar, though somewhat more complex, interface integration was recently completed for the FEI Advanced Metering Infrstructure (AMI) project at a cost of approximately $650 thousand.

7.0 Reference: ANALYSIS OF ALTERNATIVES

Exhibit B-1, Section 4.4.2, Table 4-4, p. 68, Section 4.4.6, Table 4-9, p. 77

CIS Replacement Project Alternatives Evaluation Criteria

On page 68 of the Application, FBC provides Table 4-4: Evaluation Weighting Criteria. Each criterion and sub-criterion is assigned a weight used in the assessment of alternatives for the CIS Replacement Project. FBC also states that it developed scoring definitions for each of the main criteria using a scale from 1 to 3.

7.1 Please describe the methodology used to assign weightings to each of the evaluation sub-criteria, including whether the weightings were informed by management judgement, stakeholder input, prior project experience, industry benchmarks, or other supporting analysis. Please provide the rationale for the choice of inputs into these weightings.

Response:

Please refer to the response to BCUC IR1 4.1 for an explanation of the methodology used to assign weightings to each of the evaluation sub-criteria. FortisBC's approach to developing the evaluation criteria and sub-criteria was consistent for both the ERP Modernization Project and the CIS Replacement Project. The only difference between the two projects was that an additional sub-criterion was added to Criteria 1 for the CIS Replacement Project – Customer Experience. The Customer Experience sub-criterion was included in Criteria 1 and assigned the highest weighting due to the relative importance of any customer information system's ability to support customers and contribute to a positive customer experience.

On page 77 of the Application, FBC provides Table 4-9: Weighted Scoring [scoring results for the non-SAP and SAP CIS Alternatives]. The table shows that Criteria 1: Ability to Support Current and Future Requirements, scores the same for the two feasible project alternatives.

7.2 Please explain, with rationale, how FBC determined that a scale from 1 to 3 was the most appropriate for scoring the two feasible alternatives for the CIS Replacement Project. In the response, please explain:

a) Whether other scales were considered (e.g. 1 to 5) and if so, why they were not suitable.

b) Whether the use of a different scale (e.g. 1 to 5) would result in different scoring of each criterion, specifically for Criteria 1.

c) How the chosen scale (i.e. 1 to 3) compares to other FortisBC projects.

Response:

Please refer to the response to BCUC IR1 4.2.

7.3 Please discuss how each of the criteria and sub-criteria in Table 4-4 were selected to show trade-offs between the two feasible CIS Replacement Project alternatives.

Response:

Please refer to the response to BCUC IR1 4.3.

D. COMBINED PROJECT

8.0 Reference: PROJECT IMPLEMENTATION

Exhibit B-1, Section 2.2.3, pp. 16-17, Figure 2-2, p. 17, Section 5.3.1, Figure 5-1, p. 82, Section 6.2, Table 6-1, p. 102, Section 2.3.3, Figure 2-4, p. 25, Section 5.3.2, pp. 84-97

Combined Project Scope

On page 16 of the Application, FortisBC states:

> In addition to the core ECC modules, FortisBC uses several SAP-centric applications (highlighted in dark blue in Figure 2-2) that extend SAP's functionality. These include Business Warehouse (BW) for analytics and reporting, Customer Relationship Management (CRM), Enterprise Portal (EP), and Governance, Risk, and Compliance (GRC), among others. These applications enhance user access, compliance monitoring, and data-driven decision-making.

On page 17 of the Application, FortisBC provides Figure 2-2: SAP Environment at FortisBC. In addition to the SAP Enterprise Central Component (ECC), SAP CRM and SAP BW applications, Figure 2-2 shows the SAP Enterprise Portal, SAP SuccessFactors, SAP Concur, and SAP Data Quality Management (DQM).

On page 82 of the Application, FortisBC provides Figure 5-1: SAP at FortisBC After Implementation of ERP Modernization Project. Figure 5-1 also shows the SAP SuccessFactors, SAP Concur, and SAP DQM.

On page 102 of the Application, FortisBC provides Table 6-1: Combined Project Cost Estimate.

8.1 Please describe the purpose and functionality of each of the SAP Enterprise Portal, SAP SuccessFactors, SAP Concur, and SAP DQM applications. Please include a discussion on how these applications integrate with the SAP ECC, SAP CRM, and SAP BW applications.

Response:

SAP Enterprise Portal is an SAP provided Web Server that allows FortisBC to host and execute both SAP standard and custom written applications that are not directly executable within SAP ECC. For example, any application that is written in HTML cannot be hosted and executed directly in SAP ECC as it is not a web server. Therefore, FortisBC installs the application in SAP Enterprise Portal and integrates it with the SAP ECC environment via various mechanisms, including SAP standard technologies, Web Service calls or SAP propriety protocols such as Remote Function Call (RFC). There is no direct integration to SAP CRM or SAP BW.

SAP SuccessFactors is an SAP Software as a Service (SaaS) application that provides Human Capital Management (HCM) functionality, including performance management, recruiting, and learning. It is a cloud-based application that integrates with the SAP ECC environment via standard SAP technology, moving through the SAP Cloud Integration layer to keep HR master data synchronized across systems. This application has no direct integration with SAP CRM or SAP BW.

SAP Concur is an SAP SaaS application used to manage employee expense claims and corporate credit card transactions. The application provides a web-based interface that enables employees to submit expenses with supporting documentation and supports approval workflows. Upon approval, expense and financial transaction data are integrated with SAP ECC via SAP Cloud Integration layer, enabling accurate and timely posting to FortisBC's financial systems. This application has no direct integration with SAP CRM or SAP BW.

SAP Data Quality Manager (DQM) is an SAP application hosted on-premise that connects to both SAP ECC and SAP CRM via RFC. DQM allows SAP CRM and ECC users to validate postal addresses in real time against the monthly Canada Post database. This application has no direct integration with SAP BW.

8.2 Please clarify whether upgrades of the SAP SuccessFactors, SAP Concur, and SAP DQM applications are included as part of the ERP Modernization Project.

8.2.1 If included, please provide details of the scope of work included in the ERP Modernization Project and clarify where these SAP applications are included in the Combined Project cost estimate shown in Table 6-1. Please update the cost estimate and the Application, if applicable.

8.2.2 If not included, please explain why FortisBC is not upgrading these SAP applications as part of the ERP Modernization Project. In the response, please explain whether and when these applications would require upgrading, and discuss vendor support timelines for these applications.

Response:

Upgrades of the SAP SuccessFactors, SAP Concur and SAP DQM applications are not included as part of the ERP Modernization Project scope because SAP support for Concur, DQM, and SuccessFactors extends beyond 2027, unlike SAP ECC, CRM, and BW.

SAP SuccessFactors and SAP Concur are cloud-based SaaS applications hosted and managed by SAP receiving regular, automatically applied maintenance updates.

SAP DQM remains an SAP-supported on-premise application with ongoing version updates. FortisBC upgraded it in 2022 and is now completing another upgrade, with SAP's mainstream support for the newest version extending to 2033.

While upgrades to SAP SuccessFactors are not included in the ERP Modernization Project, FortisBC has included the implementation of the SuccessFactors Onboarding module within the Combined Project scope. Similar to the SAP S/4HANA application, the SAP SuccessFactors application consists of multiple modules. The SuccessFactors Onboarding module is not currently used by FortisBC; however, it was identified during project planning as an opportunity to address known onboarding inefficiencies and improve the employee onboarding experience. FortisBC therefore determined that including this module within the ERP Modernization Project would achieve implementation efficiencies relative to delivering it as a standalone initiative, including reduced integration effort and coordinated change management and training.

The costs associated with the implementation of the SuccessFactors Onboarding module are approximately $600 thousand, and FortisBC confirms that they are included in the Combined Project cost estimate in Table 6-1.

8.3 Please explain why the SAP Enterprise Portal is not shown in Figure 5-1.

Response:

The SAP Enterprise Portal is not shown in Figure 5-1 because it will no longer be required following implementation of the Combined Project.

The SAP Enterprise Portal will be reaching the end of its service life in 2027. All applications currently hosted on the SAP Enterprise Portal are within the scope of the Combined Project and will be replaced by functionality delivered through the new SAP S/4HANA and Service Cloud applications.

On page 25 of the Application, FortisBC provides Figure 2-4: CIS Plus Requires Multiple Connections to Various Other Applications. The CIS Plus includes four modules: Meter to Cash Customer Billing, Work Order Management, Customer Master Data, and Customer Service Frontend. Figure 2-4 also shows the Enterprise Data Warehouse as a connection to CIS Plus.

8.4 Please describe the functionality of the Enterprise Data Warehouse application and discuss how this application is integrated with the CIS Plus within the scope of the CIS Replacement Project. In the response, please describe how the CIS Plus connection to Enterprise Data Warehouse is different from the connection to Internal Applications show in Figure 2-4.

Response:

The Enterprise Data Warehouse (EDW) application serves as FBC's enterprise reporting and analytics layer that aggregates data from SAP ECC, CIS Plus and other operational systems. EDW preserves historical and long-term analytical data to support trend reporting. CIS Plus is transactional, while EDW enables consistent, auditable, enterprise-wide reporting and supports downstream systems that rely on consolidated views.

Currently, CIS Plus feeds EDW with customer master data, billing, receivables, and payment transactions, meter data, service orders and work management data.

The CIS Plus connection to EDW is different from the connection to the Internal Applications shown in Figure 2-4 because it is an on-premise centralized data repository that acts as an integration hub sourcing data from various FBC applications, including CIS Plus, the Itron Meter Data Management System, the FBC Geographic Information System (GIS), and various other FBC electrical plants and substations.

As a result of the proposed Project, source structures feeding EDW will fundamentally change and require EDW integration remapping.

On pages 84 to 87, FortisBC discusses the scope of the CIS Replacement Project. On page 84, FortisBC states that the scope is structured around the following functional areas:

- Revenue Management, Billing and Customer Accounting: Migrating the existing Meter-to-Cash billing functionality from CIS Plus to SAP, including ensuring all existing interfaces to other applications continue to function in the new SAP environment.
- Customer Relationship Management: Migrating the existing CIS Plus Customer Service front-end functionality to SAP's Service Cloud application primarily used by customer service staff to manage customer inquiries.
- Work Management: Integrating with several interfaces such as Mobile Workforce Management (MWFM), Geographic Information System (GIS),

Disconnection / Reconnection service orders, device management and field service-related orders.

8.5 Please confirm, or otherwise explain, that the scope related to the Work Management functional area includes upgrading or replacing the Work Order Management module within the existing CIS Plus at FBC, shown in Figure 2-4.

Response:

Confirmed. The CIS Replacement Project scope includes replacing the Work Order Management module in the current CIS Plus at FBC.

8.6 Please confirm, or explain otherwise, whether the CIS Replacement Project includes migration of the Customer Master Data module shown in Figure 2-4. If included, please provide:

a) further details of this scope;

b) further details on data migration; and

c) confirmation that this scope is included in the AACE Class 3 cost estimate for both the CIS Replacement Project and the Combined Project.

Response:

Confirmed. The CIS Replacement Project includes migration of the Customer Master Data module. FortisBC responds to each of the sub-questions below.

a. The CIS Replacement Project scope includes the migration of the Customer Master Data from the legacy CIS Plus application to the new SAP S/4HANA and SAP Service Cloud solutions. The scope of data to be migrated includes customer account master records required to support ongoing customer service, billing, and related business processes in the new CIS environment. The detailed criteria governing which customer records will be migrated, including considerations such as account status, account age, open balances, and applicable legal or regulatory requirements, will be finalized during the detailed design phase of the Combined Project.

b. Data migration activities will be executed using standard data migration tools and methodologies provided by the Combined Project's system integrator. These activities will include data extraction from CIS Plus, transforming the data through data cleansing and standardizing it to fit the new application requirements, validating the data aligns with SAP data structures, and controlled loading of the data into the target SAP systems.

c. FortisBC confirms that the scope and associated data migration activities described above are included in the AACE Class 3 cost estimate for both the CIS Replacement Project and the Combined Project, as reflected in the Application.

9.0 Reference: PROJECT IMPLEMENTATION

Exhibit B-1, Section 5.4, pp. 87-88

Combined Project Implementation Approach

On pages 87 to 88 of the Application, FortisBC discusses the Combined Project schedule stages, and states:

> The build phase will be followed by separate but overlapping test phases for the ERP Modernization and CIS Replacement scopes. Overlapping the two test phases will provide testing synergies where scope overlaps (e.g., FEI and FBC customer service functionality).
>
> The deployment phase is split into two separate production releases. The first production release will modernize the existing ERP platform, followed by additional testing and a second production release that migrates the data from CIS Plus to the new modernized ERP platform

9.1 Please describe how FortisBC plans to manage existing customer and operational data during the overlapping test phases and the interim period between production release of the ERP Modernization and CIS Replacement Projects.

Response:

FortisBC will continue to operate with the customer and operational data in the legacy SAP ECC and CIS Plus systems during the overlapping test phases. For testing purposes, point-in-time data extracts will be taken from the legacy systems and used to validate data migration, conversion, and reconciliation activities in the test environments. This approach ensures that day-to-day operations are not disrupted during testing.

Following the first production release, which will modernize the ERP platform, operational use of ERP data will transition to the new SAP S/4HANA and Service Cloud applications. The legacy SAP ECC system will be placed in read-only mode and retained for reference purposes. Testing of CIS data migration will then continue in a separate, non-production SAP environment using data snapshots from CIS Plus, while live customer operations remain on the legacy CIS Plus system.

Upon completion of testing and readiness for the second production release, a planned production cutover will occur to migrate CIS Plus data into the live SAP S/4HANA and Service Cloud environment. At that time, the legacy CIS Plus system will be placed into read-only mode for reference, and the temporary test environments will be decommissioned.

9.1.1 Please clarify whether there will be two parallel systems or dual data sources at any point during the overlapping and interim periods. If yes, please discuss how FortisBC will prevent any discrepancies or errors in the data between the transition periods.

Response:

During the interim period between the first and second production releases, FortisBC will operate a single production environment and a separate non-production environment. The production SAP S/4HANA and Service Cloud environment will support live operations following the ERP Modernization release, while the non-production environment will be used solely to test the migration of data from the legacy CIS Plus system.

At no point will FortisBC operate two parallel production systems or maintain dual sources of live operational data. Live customer and operational data will remain active in only one system at a time, either in the legacy system during testing or in the SAP S/4HANA and Service Cloud environment following production cutover. The non-production environment will be populated only through controlled, point-in-time data copies for testing purposes. This approach avoids the need for ongoing data synchronization between systems and mitigates the risk of data discrepancies during the transition period.

9.2 Please discuss whether FortisBC has conducted any analysis to conclude that the staggered release of the ERP Modernization and the CIS Replacement projects is preferable to a simultaneous rollout.

9.2.1 If yes, please provide such analysis as supporting evidence, showing a comparison of the costs and benefits of a simultaneous release versus the proposed staggered release approach. Please include any estimates of additional costs, risks, or efficiencies for each approach.

9.2.2 If not, please explain, with rationale, how FortisBC arrived at its conclusion that a staggered approach is the preferable and more cost-effective option for the Combined Project implementation rather than a simultaneous rollout.

Response:

FortisBC confirms that it conducted a detailed assessment, which included information provided by the system integrator (IBM), comparing a simultaneous rollout of the ERP Modernization and CIS Replacement scopes versus a staggered (phased) release. The assessment considered cost,

schedule, and risk. The risk categories assessed included Business Disruption, Change Management and Training, Data Migration, Performance, Project Deployment and Execution, Resources, Stabilization, and Technical Complexity.

Below is the risk assessment that was conducted, which evaluated both release options across a number of risks identified within each of these categories. For each release option, scores were calculated for the risks based on the probability of the risk occurring and the severity of the impact should it occur.

- **Impact:** Assessed from 1 to 5, with 5 being the highest severity impact
- **Probability:** Assessed from 1 to 5, with 5 being the most likely to occur
- **Risk Score:** Calculated as Impact x Probability, with a higher score being greater risk

Table 1: Risk Assessment of Simultaneous vs Staggered Release

RISK CATEGORY	RISK	IMPACT	Simultaneous Release		Staggered Release	
			Prob	Risk Score	Prob	Risk Score
Business Disruption	Meter to cash cycle disruptions (e.g., billing payment) impact company reputation or revenue flow	5	5	**25**	3	**15**
Business Disruption	Payroll failure	3	1	**3**	1	**3**
Change Management & Training	Business areas are not ready to use S/4HANA	4	5	**20**	1	**4**
Change Management & Training	Employees and managers challenged with use of the system (e.g., time entry, and approvals)	3	3	**9**	3	**9**
Data Migration	Complexity migrating data into system	3	1	**3**	3	**9**
Interim Processes	Additional interfaces required to sync finance data from legacy CIS Plus to S/4HANA	3	0	**0**	1	**3**
Performance	Budgeted costs are exceeded	4	5	**20**	3	**12**
Performance	Potential for errors to meet SQIs and customer expectations with four Customer Service sites in different cities	4	5	**20**	1	**4**
Project Deployment & Execution	Project delivery issues pivot the project to a phased approach	3	3	**9**	0	**0**
Project Deployment & Execution	Deployment scheduling planning limited by SOX, year-end close for Financials, and month end processing requirements	2	1	**2**	3	**6**
Project Deployment & Execution	System integrator interruptions arising from contract or schedule disputes	3	1	**3**	3	**9**

RISK CATEGORY	RISK	IMPACT	Simultaneous Release		Staggered Release	
			Prob	Risk Score	Prob	Risk Score
Resources	Ability to maintain dedicated skilled resources and current staff capacity constraints to take on project work. Ability to source additional staffing meet internal and external deadlines	3	3	**9**	3	**9**
Stabilization	Project resources' ability to manage issues during stabilization	3	5	**15**	3	**9**
Stabilization	Difficulty of rollback if required	5	1	**5**	3	**15**
Technical Complexity	Unable to maintain synchronized environment resulting in production issue (e.g., defect fixes to production get missed being applied to test environment for second release)	4	0	**0**	1	**4**
Total Risk Score				**143**		**111**

As illustrated by the difference in the total risk scores between options, the simultaneous rollout total risk score is almost 30 percent higher than for the staggered release. The simultaneous roll-out has a significantly higher potential for negative customer and employee impacts, schedule delays and cost overruns than the staggered release.

FortisBC considered the impact of the system integrator's schedule and determined the staggered release will take approximately two months (10 percent) longer than a simultaneous release. Also, FortisBC estimates that, before considering contingency, a staggered release will increase costs by approximately $5.2 million (4 percent) compared to a simultaneous release.

FortisBC determined that the significantly lower risk score of a staggered release outweighs the slightly longer implementation timeline and the increased costs. Also, given the higher risks associated with a simultaneous release, the estimated savings in time and/or cost could be partially or fully eroded during project implementation due to the realization of some of the identified risks.

Accordingly, FortisBC determined that a staggered release is the preferred approach for implementing the Combined Project.

10.0 Reference: PROJECT IMPLEMENTATION

Exhibit B-1, Section 5.6.2, Table 5-5, pp. 95-99

Combined Project Risks and Governance – Assessment of Cybersecurity Risks

On pages 95 to 99 of the Application, FortisBC provides Table 5-5: Combined Project Risk Matrix, describing the Combined Project risks and mitigation plans.

10.1 Please discuss any cybersecurity risks at the enterprise level or at the project level that may impact the Combined Project and the mitigation plans to address the risks. Please discuss FortisBC's supply chain cybersecurity risk mitigation measures, if any, for the Combined Project during the implementation period.

Response:

FortisBC maintains a robust cybersecurity practice that is applicable to all aspects of the enterprise. FEI and FBC follow a formal Corporate Security Risk Management practice and recognize and adapt to the changing threat landscape, including a continuous governance and training cycle to ensure corporate security objectives are being met with secure processes and monitoring of critical assets.

The Combined Project will adhere to FortisBC's cybersecurity enterprise practices. All new software and vendors must complete a Security Risk Assessment (SRA), providing technical details on how data is protected. Projects proceed only after the SRA is reviewed and approved by FortisBC's cybersecurity teams. Integration vendors already adhere to approved SRAs. If new functionality or scope emerges, the SRA is reopened and reassessed. This ensures continuous validation of cybersecurity controls.

The FortisBC SRA with SAP will be used to evaluate and confirm that SAP's RISE security controls, certifications, and third-party risk management processes have sufficient risk mitigation measures in place aligned with FortisBC's supply chain risk mitigation procedures and requirements. In addition, IBM as system integrator will be required to comply with FortisBC's security policies, access management standards and contractual cybersecurity obligations.

11.0 Reference: PROJECT COST ESTIMATE

Exhibit B-1, Section 6.2.1, p. 103

Allocation of Combined Project Costs to FEI and FBC

On page 103 of the Application, FortisBC proposes that the implementation costs for the ERP Modernization Project should be allocated to FEI and FBC based on the ratio of employees between the two utilities, with approximately 78 percent to FEI and 22 percent to FBC.

11.1 Please clarify whether FEI and FBC have any common employees. If the two utilities have any common employees, please explain how common employees are accounted for in the proposed allocation methodology.

Response:

While employees may support both FEI and FBC work, each employee is designated as either an FEI or an FBC employee. If a gas (FEI) employee performs work for FBC, and vice versa, the time is either cross-charged or captured through the cost driver under the approved shared services policy.[5] There is no double counting of employees that support both FEI and FBC in the proposed allocation of 78 percent to FEI and 22 percent to FBC.

FortisBC notes that the current allocation of shared services is approximately 80 percent to FEI and 20 percent to FBC, which is closely aligned with the proposed employee-based allocation of 78 percent to FEI and 22 percent to FBC for the ERP Modernization Project. Please refer to the response to BCUC IR1 11.2 which demonstrates that the difference in the allocation of the total ERP Modernization Project costs is small between the cost driver approach based on the current shared services policy and the proposed approach based on the number of FEI and FBC employees.

11.2 Please explain if alternative methodologies for allocating the ERP Modernization Project costs between FEI and FBC, such as allocation based on the utilities' rate base, were considered. If not, please explain why not.

11.2.1 Please compare the total dollar value allocated to each of FEI and FBC under each alternative allocation methodology discussed in FortisBC's response to the preceding IR as compared to the proposed allocation methodology.

[5] FortisBC's current allocation methodology for shared services between FEI and FBC was approved as part of the 2020-2024 Multi-year Rate Plan Decision and Orders G-165-20 and G-166-20.

Response:

FortisBC considered five methodologies for allocating the ERP Modernization Project costs between FEI and FBC, as further described below. Please also refer to Table 1 below for a comparison of these allocation methodologies in terms of total combined project costs and levelized rate impacts.

- **Number of employees (proposed):** This proposed method aligns with how the upgraded ERP system will be used by both FEI and FBC employees (i.e., SAP is an employee-facing system), with similar user roles and access, and is consistent with the allocation approach for other IS projects, such as Project One, which was completed in 2018 (as discussed in Sections 2 and 6.2.1 of the Application). The use of the number of employees as the cost driver for cost allocation is also consistent with the allocation method for O&M related to IS costs in FortisBC's currently approved Shared Services Policy.[6]
- **Shared services allocation:** This method would be based on the average allocation across all shared services between FEI and FBC under FortisBC's Shared Services Policy, which is based on different cost drivers depending on the shared service activities. For example, Customer Service activities are based on number of customers; Health & Safety, HR, IS, and Communications & External Relations are based on number of employees; Corporate and Finance activities are based on the Massachusetts formula; and Fleet Services and Regulatory activities are based on time estimates. As discussed in the response to BCUC IR1 11.1, the current average allocation of shared services is approximately 80 percent to FEI and 20 percent to FBC.
- **Number of customers:** This method aligns with the respective customer bases that would be supported by the upgraded ERP system. Based on the 2026 Approved customer forecasts for FEI and FBC, the allocation would be approximately 88 percent to FEI and 12 percent to FBC.
- **Rate Base:** This method assumes that the use of the ERP system would be aligned with the assets that FEI and FBC are each using to serve their customer base. Based on the 2026 Approved rate base forecast, the allocation would be approximately 78 percent to FEI and 22 percent to FBC.
- **Revenue Requirement:** This method assumes that the use of the ERP system would be aligned with each Company's revenue requirement. Based on the 2026 Approved revenue requirement forecast, the allocation would be approximately 79 percent to FEI and 21 percent to FBC.

[6] Decision and Orders G-165-20 and G-166-20 regarding FortisBC's 2020-2024 MRP Application.

Table 1: Comparison of Alternative Methods for Allocating the ERP Modernization Project Costs between FEI and FBC in Total Combined Project Costs ($ millions) and in Levelized Rate Impact (%)[7]

Method	Ratios		Total Project (As-Spent $)	% of Total Project	Levelized Rate Impact (%)
Number of Employees	FEI	78%	$ 92.210	48%	0.60%
	FBC	22%	$ 98.495	52%	1.94%
Shared Services Allocation	FEI	80%	$ 94.515	50%	0.62%
	FBC	20%	$ 96.199	50%	1.90%
Number of Customers (2026 Approved)	FEI	88%	$ 103.732	54%	0.69%
	FBC	12%	$ 87.015	46%	1.72%
Rate Base (2026 Approved)	FEI	78%	$ 92.210	48%	0.60%
	FBC	22%	$ 98.495	52%	1.94%
Revenue (2026 Approved)	FEI	79%	$ 93.363	49%	0.61%
	FBC	21%	$ 97.347	51%	1.92%

As shown in Table 1 above, the allocation methods yield similar results in the allocation of the total Combined Project cost[8], which are either slightly above or below 50 percent to FEI or FBC. There are only small differences in the resulting levelized rate impacts for both FEI and FBC.

The only allocation method which results in a more notable difference in terms of the levelized rate impact is the number of customers allocation approach (this approach results in a slightly higher levelized rate impact for FEI and correspondingly lower impact for FBC). However, FortisBC does not consider allocating the ERP Modernization Project costs based on the number of customers to be a better approximation of how much or how often the current or the upgraded ERP system is/will be used between FEI and FBC than the number of employees. This is because many functions of the ERP system are not customer-facing and their use by each department is typically more influenced by the number of employees rather than the number of customers of each utility. For example:

- The use of the ERP system for workforce administration, human resource activities and processing payroll for FEI's and FBC's employees are more heavily influenced by the number of employees between each utility than the number of customers.

[7] As explained in previous IR responses, FortisBC has identified some minor errors in the financial models. FortisBC has filed an Errata concurrently with these IR responses reflecting the small changes to the financial analysis which have been summarized in the cover letter to the Errata. Table 1 reflects the corrected costs and financial analysis as presented in the Errata.

[8] The CIS Replacement costs continue to be allocated 100 percent to FBC as discussed in Section 6.2.1 of the Application.

- The use of the ERP system for FortisBC's financial and procurement operations, including much of its financial reporting, regulatory and audit compliance work, vendor invoice processing work, and the number of procurement activities would not be impacted by each utility's respective number of customers. The fact that FEI has more customers than FBC does not necessarily mean an increase in the use of the ERP system for financial reporting or procurement processes. Instead, the amount of time that the ERP system is used by FEI for these activities tends to be higher due to the larger amount of employees (i.e., larger number of users of the ERP system).
- Using the ERP system for asset maintenance, inventory controls, and emergency response is influenced by the number of employees that use the system more than the number of customers.

Given the examples identified above, FortisBC considers the number of employees to be the best approximation of how often the ERP system is used between FEI and FBC. Further, as previously discussed, this allocation approach is consistent with other similar IS projects as well as the cost driver used to allocate IS O&M costs under FortisBC's approved Shared Services Policy. As such, FortisBC continues to consider the number of employees to be the most reasonable allocation method for the ERP Modernization Project costs.

12.0 Reference: PROJECT COST ESTIMATE

Exhibit B-1, Section 6.2, Table 6-1, p. 102, Section 5.5, pp. 89-91

Facilities Costs

On page 102 of the Application, FortisBC provides Table 6-1: Combined Project Cost Estimate, indicating the Class 3 cost estimates for the ERP Modernization Project, CIS Replacement Project, and the Combined Project. The Class 3 cost estimate for the Combined Project includes $6.065 million in As-Spent dollars for Facilities.

On page 89 of the Application, FortisBC states that the Class 3 cost estimate for the Combined Project includes costs estimated by FortisBC, in addition to the fixed-price quote provided by IBM. FortisBC states that the additional costs are required "to support delivery of the Combined Project, including third-party vendors, internal project labour, software licenses, infrastructure, and facilities costs."

On pages 90 to 91 of the Application, regarding Facilities Costs, FortisBC states:

> To support collaboration between core project team members, FortisBC and IBM have planned for an onsite resource strategy at a FortisBC facility in the Lower Mainland. FortisBC conducted market research to determine the costs of temporarily leasing and configuring additional office space for the Project team.

12.1 Please provide the Facilities cost per on-site team member over the duration of the project (i.e. total Facilities cost divided by number of on-site team members required). Please discuss the reasonableness of this cost, including, for example, how it compares to costs on similar FortisBC's projects, or market lease rates for facilities.

Response:

The facilities cost estimate provided in Confidential Appendix A of the Application is based on information from existing FortisBC facilities, standard cost data from similar projects, and external market research. Table 1 below summarizes the estimated costs for leasing space, facilities build-out and furniture, and computer equipment. As FortisBC is planning a hybrid work environment with shared on-site workspaces (as further described in the responses to BCUC IR1 12.2 and 12.3), the number of on-site team members will vary over the duration of the Combined Project. Therefore, FortisBC used the estimated number of required workspaces and associated equipment to calculate the per unit costs shown in Table 1.

Table 1: Project Facilities Costs and Estimated Per Unit Cost (in $ thousands)

Project Facilities	Costs	No. of Unit	Per Unit Costs
Leasing Space	$ 3,000	150 Workspaces	$ 20
Facilities Build-Out & Furniture	$ 2,321	150 Workspaces	$ 15
Computer Equipment	$ 448	127 Computers/Equipment	$ 4
Total	$ 5,770		

FortisBC estimates that the leasing space represents approximately half of the total facilities costs. To develop this estimate, FortisBC conducted a comprehensive assessment of staffing levels, workspace needs, and available facilities. As further discussed in the responses to BCUC IR1 12.2 and 12.3, FortisBC's existing facilities could not accommodate the required space. Accordingly, FortisBC evaluated leasing options for approximately 150 workspaces. To support this process, FortisBC engaged an external consultant (CBRE) to conduct a market survey which focused on the Surrey/Langley area. The survey demonstrated that leasing costs vary materially by region due to differences in demand, land values, building quality, and local economic conditions. Metro Vancouver typically has higher lease rates than suburban markets, while longer lease terms generally secure more favorable rates. These regional and lease structure variations limit direct comparisons, and FortisBC does not have recent comparable leased facilities in the Surrey/Langley area.

Facilities build-out and furniture costs were estimated using standard cost data from similar FortisBC projects for approximately 150 workspaces. As the leased location is not expected to require major structural changes, these costs primarily reflect workspace configuration (including workstations and shared areas, such as meeting rooms) and basic appliances (e.g., refrigerator, microwave, dishwasher). FortisBC will repurpose existing furniture where possible to reduce costs.

Computer equipment costs are based on standard FortisBC provisioning requirements for new employees and reflect the equipment required for the Project. Existing employees working on the Project will continue to use their current computer equipment.

Overall, FortisBC considers the facilities cost estimate reasonable and appropriate for the Combined Project, as it is supported by current regional market lease data, FortisBC's standard facilities-related cost information, and the reuse of existing assets where feasible.

12.2 Please identify the specific operational, technical, security, or collaboration requirements that necessitate temporarily leasing and configuring additional dedicated office space for the project team.

Response:

As discussed below, adequate space to achieve collaboration requirements was the primary driver necessitating the temporary leasing and configuration of dedicated project office space to support effective collaboration for a project of this size, complexity, and risk profile.

In evaluating office space, FortisBC first explored the option of utilizing the Companies' existing facilities in the Lower Mainland; however, none of the facilities could provide adequate workspace to accommodate a dedicated project environment of the required scale. FortisBC also explored utilizing IBM's existing local premises; however, after reviewing the capacity at its existing locations, IBM confirmed that its local facilities do not have sufficient space to accommodate a dedicated core project team of this size.

FortisBC also clarifies that while it has selected the approach of temporarily leasing and configuring dedicated office space for the project team, it is also proposing to utilize a hybrid work environment, and this hybrid approach is reflected in the Class 3 cost estimate for the Combined Project.

FortisBC also considered factors such as security and system requirements, availability, flexibility, and timing when selecting the office space for the project team.

Adequate Space

Through a review of lessons learned of large-scale system implementation projects, consultations with other utilities and insight from the system implementor (IBM), FortisBC identified co-locating the team as a common success and risk mitigation factor. Feedback emphasized that co-location materially improved collaboration, coordination, and delivery outcomes, particularly during design, testing, and cutover phases. Further, insight from IBM indicates that co-location supports managing integration complexity, cross-functional dependencies, and delivery risk on a project of this nature. The space must provide common areas for collaboration and meetings, workstations to support individual tasks, in addition to ensuring that requirements for employee workspaces are met (e.g., restrooms, break room, first aid spaces, and accessibility requirements). As explained above, in evaluating project space requirements, FortisBC expects that a structured hybrid work environment will be used.

Security and System Requirements

Any space used by the project team must adhere to corporate security and system requirements. This includes ensuring that access to the site is restricted and managed in accordance with the corporate security program and, similarly, that any system configuration and technology needs of the workspace are aligned with corporate cybersecurity and technology policies.

Availability, Flexibility and Timing

The facilities used by this project will be temporary in nature and potential options need to have a degree of flexibility to address project approval and implementation timelines. Availability of the space in the time frame needed is a key determinant.

12.3 Please explain why each of the following options to co-locate the collaborative FortisBC and IBM team members were not selected:

a) Remote or hybrid work environment for both FortisBC and IBM project team members.

b) FortisBC existing facilities in the Lower Mainland;

c) IBM local existing premises;

d) Alternative staffing models including partial on-site presence, staggered schedules, etc.

For each, please provide a high-level estimate of the project cost impact of this option, and why it was not deemed feasible.

Response:

As described in the response to BCUC IR1 12.2, FortisBC first explored the option of utilizing the Companies' existing facilities in the Lower Mainland (i.e., option (b)) as well as utilizing IBM's existing local premises (i.e., option (c)); however, none of these existing facilities could accommodate a dedicated core project team of the size necessary for the Combined Project. Further, FortisBC is planning to adopt a hybrid work environment for both FortisBC and IBM project team members where possible (i.e., option (a)). FortisBC provides additional information on each of the options identified by the BCUC below.

Option (a): Remote or hybrid work environment for both FortisBC and IBM project team members

A hybrid work environment for FortisBC and IBM project team members is the delivery model reflected in the Class 3 cost estimate for the Combined Project.

For the FortisBC project team, in alignment with collective agreements and FortisBC remote work policies, there may be specified days where project team members may work from alternate spaces offsite.

IBM plans to deliver the project using a combination of on-site and off-site resources. During planning and design phases, IBM confirmed the need for dedicated project workspaces for approximately 24 on-site resources, primarily present three days per week, with specific

personnel varying by project phase. This approach is also expected to reduce system implementor travel costs.

For the reasons discussed in the response to BCUC IR1 12.2, a fully remote model was not selected because it would not provide the level of in-person collaboration required for a project of this size and complexity.

Option (b): FortisBC existing facilities in the Lower Mainland

FortisBC first explored the option of utilizing existing facilities in the Lower Mainland (i.e., this was FortisBC's first option, but it was ultimately determined not to be viable). Utilizing existing office space would have been beneficial since base building requirements such as communication closets, washrooms, and first aid rooms were already in place, helping to reduce project costs. However, all of FortisBC's Lower Mainland office facilities are nearing full capacity and could not accommodate a dedicated project space for personnel on a project of this size. The investigation considered several alternatives, including repurposing existing meeting rooms and adding temporary trailers to a site; however, neither option proved feasible. Repurposing meeting spaces would compromise operational needs, while parking restrictions meant there was insufficient capacity to support both displaced staff and additional trailers. Overall, the facilities could not provide adequate workspace or parking.

As this option was deemed not to be viable, FortisBC did not prepare cost estimates to modify existing FortisBC facilities.

Option (c): IBM local existing premises

FortisBC explored the use of IBM's existing local premises, and IBM reviewed available capacity at those locations. IBM confirmed that its local facilities do not have sufficient space to accommodate a dedicated core project team of this size. IBM further advised that, similar to FortisBC, it would be required to lease and configure temporary space to support the project and would pass through those costs to FortisBC. As a result, this option would not provide a cost advantage relative to FortisBC leasing and managing the project facilities directly. Accordingly, FortisBC did not prepare cost estimates for the use of IBM's local existing facilities.

Option (d): Alternative staffing models, including partial on-site presence and staggered schedules

Alternative staffing models, including partial on-site presence and staggered schedules, were considered and are incorporated into the planned hybrid delivery approach described under option (a), which is FortisBC's selected approach. This model balances the need for in-person collaboration during critical design, testing, and integration activities with remote work where appropriate. Further reducing on-site presence beyond the planned hybrid model was rejected because it would increase the project delivery risk and reduce collaboration effectiveness, with limited or no material reduction in facilities costs due to the ongoing need for dedicated space to support peak on-site activities.

Since co-location and coordinated schedules are expected to provide optimal project outcomes and reduce implementation risk, FortisBC did not evaluate the impact of staggered schedules and alternative staffing models on facilities costs. At a high level, this approach would have limited or no material reduction in facilities costs due to the ongoing need for dedicated space to support peak on-site activities.

12.4 Please confirm, or otherwise explain, that the cost for project facilities reflects full-time on-site presence for all project team members for the entire duration of the implementation of the Combined Project.

Response:

Not confirmed. Please refer to the responses to BCUC IR1 12.2 and 12.3.

13.0 Reference: PROJECT COST ESTIMATE

Exhibit B-1, Section 5.5, pp. 89-91

FortisBC Labour Costs

On pages 89 to 91 of the Application, FortisBC provides information on the AACE Class 3 estimate basis for the Combined Project. The cost estimate includes a portion of costs based on the IBM proposal and a portion for FortisBC costs, which include the FortisBC Labour Costs.

On page 90 of the Application, FortisBC states the following about FortisBC Labour Costs:

> [t]o support resourcing for the Combined Project, FortisBC developed a resource plan based on IBM's project schedule and staffing recommendations for key areas as well as inputs from FortisBC functional and technical leads. The plan primarily includes FortisBC employees, supplemented by external contractors, across areas such as project management, business and technical teams, change management, and training.

13.1 Please further discuss the inputs used and assumptions made to determine the FortisBC Labour Costs. Please include evidence to support these inputs and assumptions such as the resource plan developed based on IBM's project schedule, a breakdown of FortisBC employees and external contractors, etc. Please provide a confidential response if necessary.

Response:

Please refer to Table 1 below for a breakdown of FortisBC's estimated Labour Costs for the Combined Project in accordance with IBM's project schedule discussed in Section 5.4 of the Application.[9] Included in Table 1 is a breakdown between FortisBC internal employees and external contractors into the following categories:

- Project Management;
- Change Management;
- Training;
- Business Team;
- Technical Team; and
- Temporary Customer Service.

[9] The project schedule shown in Section 5.4 is IBM's project schedule, which ends in December 2028. Table 1 below includes FortisBC's internal project close-out activities, which extend the schedule to May 2029 but do not impact the project in-service date.

FortisBC has redacted Table 1 in the public version of these IR responses and filed the unredacted version on a confidential basis as it contains commercially sensitive information.

Table 1: Breakdown of FortisBC's Labour Costs for the Combined Project ($ millions)

[redacted]

FortisBC's labour costs for the Combined Project were developed collaboratively through consultations with IBM and subject matter experts from impacted FortisBC business units and IS teams. The key inputs and assumptions used to develop the plan are based on planning phase deliverables jointly developed with IBM, including the overall project schedule, functional scope assessments, change management strategy, IBM's proposed FortisBC staffing plan, and the responsibility assignment matrix (i.e., RACI). FortisBC then separately identified the roles expected to be fulfilled by external contractors and FortisBC's employees. While the plan reflects the best estimate at the time of preparation, the final mix of internal and external resources may vary depending on the availability of qualified internal candidates as staffing progresses.

Additionally, FortisBC plans to onboard temporary customer service and billing resources incrementally in advance of system go-live and project closing as shown in Table 1 above. These resources are intended to provide additional operational capacity during the transition period and until users achieve proficiency with the new system. This assumption is based on lessons learned from other utilities that have recently implemented similar CIS transformations and is consistent with the approach described in the Application.

14.0 Reference: PROJECT COST ESTIMATE

Exhibit B-1, Section 6.2, p. 103, Section 5.5, p. 91

Combined Project Contingency

On page 103 of the Application, FortisBC states that the Combined Project cost estimate includes a contingency of 15 percent of the Combined Project implementation capital and O&M costs, of approximately $22.127 million in 2025 dollars.

On page 91 of the Application, FortisBC states that a contingency of 15 percent is applied to the base cost estimate, consistent with the Combined Project risk mitigation measures described in the Combined Project Risks and Governance section of the Application.

14.1 Please further explain how FortisBC determined that a contingency of 15 percent of the Combined Project implementation capital and O&M costs was appropriate.

Response:

The 15 percent contingency for the Combined Project is appropriate based on the level of project definition and the results of the detailed risk assessment and risk mitigation activities.

The planning and analysis work FortisBC completed with IBM produced the deliverables required to develop the Combined Project cost estimates at a Class 3 level of definition. The level of project definition allows for the identification of project-specific risks and uncertainties along with mitigations.

FortisBC followed a structured methodology to identify the major project risks, develop mitigation plans and assess the likelihood of the risk occurring and impact should it occur. FortisBC also undertook a series of pre-implementation and risk mitigation measures as described on page 91 of the Application, which included the execution of a comprehensive Master Services Agreement with IBM under a fixed-price commercial structure, as well as a defined bill of materials with SAP.

FortisBC determined that a 15 percent contingency was appropriately calibrated to the assessed level of residual risk and the degree of confidence in the underlying cost estimate.

A 15 percent contingency is also consistent with the level of contingency that FortisBC has applied to other complex information technology transformation projects, including Project One completed in 2018.

14.2 Please discuss, with justification, whether the Combined Project cost estimate includes any additional contingencies or reserves on top of the 15 percent referenced in the preamble (e.g. a management reserve).

Response:

There is no additional contingency (and no management reserve) beyond the 15 percent contingency applied to the Combined Project implementation capital and O&M costs, as outlined in Table 6-1 of the Application.

14.3 Please discuss whether a 15 percent contingency is comparable to other projects of a similar nature that FortisBC has previously undertaken (e.g. Project One in 2018).

Response:

Please refer to the response to BCUC IR1 14.1.

15.0 Reference: FINANCIAL ANALYSIS

Exhibit B-1, Section 6.3, p. 106

Breakdown of Post-Implementation Costs/Savings

On page 106 of the Application, FortisBC discusses various post-implementation costs/savings related to the Combined Project, including incremental support costs, reduction in on-premise infrastructure costs, and operational efficiencies and cost savings. FortisBC states that "[…] post-implementation regular capital and O&M costs/savings are reflected in Schedule 6 and Schedule 2, respectively, of Confidential Appendices B-1 for FEI and B-2 for FBC."

15.1 In a tabular format, please provide a breakdown of the post-implementation regular capital and O&M costs and savings by year and by line item (e.g. incremental support costs, reduction in on-premise infrastructure costs, and operational efficiencies and cost savings) for each year from 2026 to 2038 that ties to the total amounts discussed on page 106 of the Application. As part of the response, please also discuss any assumptions used to develop the estimated costs and savings.

Response:

FortisBC has redacted portions of this response and filed the unredacted version on a confidential basis as it contains commercially sensitive information.

Please refer to Table 1 below showing the breakdown of the post-implementation regular capital and O&M costs or savings by year for incremental support costs, reduction in on-premise infrastructure costs, and operational efficiencies and cost savings. FortisBC notes that the annual averages discussed in Section 6.3 of the Application (i.e., page 106), which correspond to the last column of Table 1 below, are only for the post-implementation period from 2029 to 2038. There is no change in the regular capital and O&M during the implementation years from 2026 to 2028.

Table 1: Breakdown of FEI and FBC Post-Implementation Capital and O&M Costs and Savings from 2029 to 2038 ($ thousands)

		2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	Average
Incremental Support Costs / Savings												
FEI	Capital	$ (413)	$ (480)	$ (543)	$ (543)	$ (543)	$ (543)	$ (543)	$ (543)	$ (543)	$ (543)	$ (524)
	O&M	451	274	245	319	389	469	592	679	770	865	505
FBC	Capital	(39)	(62)	(65)	(65)	(65)	(65)	(65)	(65)	(65)	(65)	(62)
	O&M	666	579	606	641	676	713	762	801	842	884	717
Total		**$ 666**	**$ 311**	**$ 243**	**$ 351**	**$ 456**	**$ 573**	**$ 745**	**$ 871**	**$ 1,003**	**$ 1,140**	**$ 636**
Reduction in on-premise infrastructure Costs												
FEI	Capital	$ (535)	$ (535)	$ (535)	$ (535)	$ (535)	$ (535)	$ (535)	$ (535)	$ (535)	$ (535)	$ (535)
	O&M	(288)	(288)	(288)	(288)	(288)	(288)	(288)	(288)	(288)	(288)	(288)
FBC	Capital	(212)	(212)	(212)	(212)	(212)	(212)	(212)	(212)	(212)	(212)	(212)
	O&M	(110)	(110)	(110)	(110)	(110)	(110)	(110)	(110)	(110)	(110)	(110)
Total		**$ (1,145)**	**$ (1,145)**	**$ (1,145)**	**$ (1,145)**	**$ (1,145)**	**$ (1,145)**	**$ (1,145)**	**$ (1,145)**	**$ (1,145)**	**$ (1,145)**	**$ (1,145)**
Operational Efficiencies Savings												
FEI	Capital	$ (85)	$ (128)	$ (170)	$ (170)	$ (85)	$ (85)	$ (85)	$ (85)	$ (85)	$ (85)	$ (106)
	O&M	(1,276)	(1,284)	(1,291)	(1,291)	(1,276)	(1,276)	(1,276)	(1,276)	(1,276)	(1,276)	(1,280)
FBC	Capital	(85)	(128)	(170)	(170)	(85)	(85)	(85)	(85)	(85)	(85)	(106)
	O&M	(281)	(288)	(296)	(296)	(281)	(281)	(281)	(281)	(281)	(281)	(284)
Total		**$ (1,727)**	**$ (1,827)**	**$ (1,927)**	**$ (1,927)**	**$ (1,727)**	**$ (1,727)**	**$ (1,727)**	**$ (1,727)**	**$ (1,727)**	**$ (1,727)**	**$ (1,777)**

The following provides a high-level summary of the assumptions used to develop the post-implementation costs or savings:

Incremental Support Costs/Savings

The total average annual incremental support costs over the 10-year post-implementation period are estimated to be approximately $636.5 thousand as shown in Table 1 above (last column), which are comprised of:

- An increase in annual SAP license costs, which is on average approximately [redacted] higher than current annual SAP license costs.[10] The annual SAP license costs are allocated 78 percent to FEI and 22 percent to FBC, as discussed in Section 6.2.1 of the Application.

The increase in annual SAP license costs is offset by savings in the following:

- Elimination of the FBC CIS AG Software licensing cost, estimated to be approximately [redacted] annually (savings) based on the actual 2024 cost;
- Elimination of the SAP Max Attention system support costs, estimated to be approximately [redacted] annually (savings);
- Reduction in software patching and change requests, estimated to be approximately $77.5 thousand in capital and $200 thousand in O&M (savings); and

[10] SAP license costs include annual escalation after the first two post-implementation years.

- Reduction in legacy system support, estimated average annual savings over the post-implementation period to be approximately $361 thousand and $159 thousand in O&M and capital, respectively.

Reduction in On-premise Infrastructure Costs

The total average annual savings resulting from the reduction of on-premise infrastructure costs over the 10-year post-implementation period is estimated to be approximately $1.145 million as shown in Table 1 above (last column), which is comprised of:

- Estimated annual savings of approximately $747 thousand due to a reduction in server hardware costs by replacing dual-platform legacy systems, ERP ECC and CIS Plus, including memory, storage, disaster recovery and backup storage, as well as a reduction in software licensing costs for the SQL server, MS operating system and MS Defender; and
- Estimated annual savings of $398 thousand due to a reduction in extended support for premium flash storage controller, VMware support, and Citrix licenses.

Operational Efficiencies Savings

The total average annual saving resulting from improved operational efficiencies over the 10-year post-implementation period is estimated to be approximately $1.777 million as shown in Table 1 above (last column), which is comprised of:

- Improved inventory tracking with the upgraded ERP system to reduce material lead time, write-offs for dead or obsolete inventory, and non-moving inventory. Average annual cost avoidances are estimated to be approximately $212.5 thousand in capital and $287.5 thousand in O&M over the post-implementation period;
- Savings in asset management with the upgraded ERP system through improved asset reporting and planning. Estimated savings are approximately $282 thousand annually; and
- Savings in Customer Service through improved customer data, better data integration and analytics, reduction in legacy support, and reduction in uncollectable and improved receivables due to better customer data. Estimated savings are approximately $995 thousand annually.

16.0 Reference: ACCOUNTING TREATMENT AND RATE IMPACT
Exhibit B-1, Section 6.4.1, pp. 107–108; SAP website
SAP Software Asset Depreciation

On pages 107 to 108 of the Application, FortisBC discusses a recommendation from Concentric Advisors, ULC (Concentric) and its own view that the new software is sufficiently different from the existing software asset classes to warrant a different depreciation rate. FortisBC proposes to depreciate the new SAP S/4HANA software and related components at a rate of 10 percent, which aligns with the expected lifecycle of the assets based on information provided by Concentric.

16.1 Please explain what is encompassed by the term "related components" in the preamble.

Response:

FortisBC's proposed depreciation rate of 10 percent for new SAP S/4HANA software and related components refers to all software-related capital for the Combined Project, including SAP Service Cloud and SAP DataSphere, as all of the SAP modules and applications (discussed in Section 5 in the Application) are integrated with S/4HANA and share the same expected lifecycle of 10 years.

16.2 Please confirm, or explain otherwise, that FortisBC is seeking the same depreciation for the SAP Service Cloud and SAP DataSphere (i.e. 10 years). If confirmed, please provide the rationale.

Response:

Please refer to the response to BCUC IR1 16.1.

16.3 Please discuss any alternative amortization lengths that FortisBC considered for the S/4HANA software assets, including the resulting depreciation rates. Please explain why each alternative amortization length was not chosen.

Response:

FortisBC considered the following alternatives for the expected lifecycle (i.e., length of amortization period) and equivalent depreciation rates of the SAP S/4HANA software assets:

- **Existing FEI and FBC Software Depreciation Rates:** Based on the most recently approved depreciation studies for FEI and FBC[11], the expected service life for the general software asset class is 8 years (as discussed in Section 6.4.1 in the Application).
- **Expected Lifecycle of SAP S/4HANA Assets:** Based on the Concentric recommendation of a 10-year lifecycle for a next-generation, cloud-based software suite such as SAP S/4HANA (as discussed in Section 6.4.1 in the Application).
- **SAP Public Maintenance Commitment to 2040:** SAP has provided public statements and news releases that there will be support and maintenance for SAP S/4HANA until the end of 2040.[12] Based on the estimate of all assets entering FEI and FBC's rate bases in 2029, a maintenance commitment to 2040 means the expected service life of the S/4HANA assets would be 11 years.

Please refer to Table 1 below for the comparison of these alternatives, which includes depreciation rates and the resulting levelized rate impacts over the analysis period.[13]

Table 1: Alternative Depreciation Rates for SAP S/4HANA Software and Levelized Rate Impacts

Method	Number of Years	Depreciation Rate	FEI Levelized Rate Impact	FBC Levelized Rate Impact
Existing FEI and FBC Software Depreciation Rates	8	12.50%	0.71%	2.25%
Expected Lifecycle of SAP S/4HANA Assets (as-proposed)	10	10.00%	0.60%	1.94%
SAP Public Maintenance Commitment to 2040	11	9.09%	0.55%	1.83%

As shown in Table 1 above, using the existing FEI and FBC depreciation rates for software will result in the highest levelized rate impacts for both FEI and FBC out of the three alternatives, while the difference between the proposed approach and the 2040 maintenance commitment from SAP is relatively minor (i.e., 10 years vs. 11 years in amortization). In general, the difference between all three approaches is similar for both companies, with the larger total variance in the levelized rate impact for FBC being 0.42 percent (when comparing 8 years to 11 years).

[11] Approved as part of the FortisBC 2025-2027 Rate Setting Framework Decision and Orders G-69-25 and G-70-25.

[12] Maintenance 2040; SAP Extends SAP S/4HANA Maintenance Through 2040 | SAP News.

[13] As explained in previous IR responses, FortisBC has identified some minor errors in the financial models. FortisBC has filed an Errata concurrently with these IR responses reflecting the small changes to the financial analysis which have been summarized in the cover letter to the Errata. Table 1 reflects the corrected costs and financial analysis as presented in the Errata.

Although the difference is relatively small, FortisBC does not consider using the existing depreciation rate (i.e., 8 years) or the SAP 2040 maintenance commitment as more appropriate than the proposed approach of 10 years for the following reasons:

- The existing depreciation rate of 8 years does not reflect the shift from traditional on-premise infrastructure to a cloud-based environment for various processes, data, and configurations that the next-generation suite of software (i.e., SAP S/4HANA) would be enabling.
- Although FortisBC is aware of SAP's public announcement of a maintenance commitment to 2040, there is no specific contractual agreement between SAP and FortisBC that it will provide continual maintenance support until 2040, whether it is for core applications or for all applications.

While SAP has not provided a contractual commitment to FortisBC for a 10-year expected service life, FortisBC's recommendation is based on guidance from Concentric based on their expertise with asset depreciation for software in various jurisdictions. Further, FortisBC's proposed depreciation rate of 10 percent falls between the other two alternatives, and the difference between a 10-year amortization and an 11-year amortization is minor. As such, FortisBC considers the proposed 10-year amortization period for the new SAP S/4HANA software assets to be the most appropriate.

SAP has publicly announced a maintenance commitment for SAP S/4HANA until the end of 2040.[14]

16.4 Please discuss whether SAP has provided any commitment or guidance on the service life of the new S/4HANA to FortisBC or Concentric.

Response:

Please refer to the response to BCUC IR1 16.3.

16.5 Please discuss how assuming an asset life ending in 2040 would impact the Project's financials, including the amortization and depreciation, and the resulting

[14] SAP SE. SAP announces a maintenance commitment for SAP S/4HANA until the end of 2040. Press Release, February 4, 2020. Available at https://news.sap.com/2020/02/sap-s4hana-maintenance-2040-clarity-choice-sap-business-suite-7/.

rate impact. In the response, please discuss why FortisBC did not select an asset end life of 2040 for the Project's assets.

Response:

Please refer to the response to BCUC IR1 16.3.

17.0 Reference: ACCOUNTING TREATMENT

Exhibit B-1, Section 6.4.3, pp. 108–109

ERP Project Implementation O&M deferral account and ERP/CIS Project Implementation O&M Deferral Account

On pages 108 and 109 of the Application, FortisBC proposes to record the Combined Project implementation O&M costs in two new non-rate base deferral accounts, named the ERP Project Implementation O&M deferral account for FEI and the ERP/CIS Project Implementation O&M deferral account for FBC. FortisBC proposes that the new deferral accounts should attract a Weight Average Cost of Capital (WACC) return, with the balance in each of the deferral account to be transferred to rate base on January 1 of the year following the decision on this Application and begin amortization over a 10-year period. The amortization length aligns with the expected lifespan of the new SAP S/4HANA software.

17.1 Please further explain why these two proposed deferral accounts should attract WACC as opposed to Weighted Average Cost of Debt (WACD).

Response:

A deferral account creates a timing difference between when funds are received or spent and when those amounts are returned to or recovered from customers, and that timing difference has an impact on utility financing. Whether it is for the implementation O&M, the application costs, or the preliminary stage development costs, the amounts expended by the utilities on behalf of customers are being financed at FEI's and FBC's respective weighted average cost of capital (WACC). This treatment is comparable to other circumstances where the utilities' cost recovery is deferred, such as capital expenditures included in rate base and the utilities' working capital, both of which are afforded a rate base return, equivalent to FEI's and FBC's WACC.

The BCUC Panel confirmed this in its decision on FBC's 2020-2021 Annual Review Application:[15]

> FBC incurs costs to finance its deferral accounts. A deferral account creates a timing difference between when funds are spent and when those costs are returned to or recovered from ratepayers, and that timing difference leads to financing costs for the utility. Rate base treatment is comparable to other circumstances where FBC's recovery of costs are deferred, such as capital expenditures included in rate base as well as a working capital component. The Panel accepts FBC's justification for rate base treatment for these deferral accounts since it results in the amounts expended on behalf of customers being financed for rate making purposes at the same rate they are financed by the utility.

[15] Decision and Order G-42-21, p. 22.

Further, WACC (or rate base) treatment for FEI's and FBC's deferral accounts is consistent with the treatment approved by the BCUC for the Companies' deferral account requests in recent years, including regulatory proceeding cost deferral accounts, preliminary stage development and application cost deferral accounts, revenue deficiency/surplus deferral accounts, and FEI's RNG Account, among others. The following are examples where WACC or rate base treatment was approved:

- **FEI Customer Care Enhancement (CCE) Project – 2010-2011 Customer Service O&M and COS deferral account:** Approved by Decision and Order C-1-10 to record the incremental O&M costs associated with the CCE Project (which included the implementation of FEI's existing SAP CRM system), attracting AFUDC[16] and transfer to rate base effective January 1, 2012.
- **FBC 2025 COSA deferral account:** Approved by Order G-265-25 as a rate base deferral account to record the costs associated with the regulatory review of the application.
- **FBC RS 96 Energy-Based Rate Application Cost deferral account**: Approved by Order G-176-24 as a rate base deferral account to record the costs associated with the regulatory review of the application.
- **FEI and FBC 2025 Multi-year Rate Plan (MRP) Application deferral account:**[17] Approved by Orders G-334-23 and G-340-23 as rate base deferral accounts to record the costs associated with the regulatory review of the application.
- **FEI Tilbury LNG Storage Expansion (TLSE) Application and Preliminary Stage Development Costs deferral account**: Approved by Decision and Order C-6-25, attracting a return at FEI's WACC and transfer to rate base on January 1, 2026.
- **FEI AMI Application and Feasibility Cost deferral account:** Approved by Decision and Order C-2-23, attracting a return at FEI's WACC until it is placed into rate base.
- **FEI OCU Application and Preliminary Stage Development Cost deferral account:** Approved by Decision and Order G-361-23, attracting a return at FEI's WACC, which was subsequently approved to transfer to rate base and begin amortization by Decision and Order C-2-25.
- **FEI Regional Gas Supply Diversity (RGSD) Development Account:** Approved by Decision and Order G-253-22, attracting a return at FEI's WACC. The account was subsequently approved by Decision and Order G-123-25 to transfer to rate base and begin amortization effective January 1, 2026.

[16] AFUDC (Allowance for Funds Used During Construction) is the same as the utility's after-tax WACC.

[17] Renamed the 2025-2027 Rate Setting Framework Application deferral account by Orders G-287-25 (FEI) and G-293-25 (FBC).

17.2 Please discuss how the proposed 10-year amortization period for the ERP Project Implementation O&M deferral account for FEI and ERP/CIS Project Implementation O&M deferral account for FBC would be impacted by the responses to IR 16.5 above.

Response:

FortisBC's proposed approach is to align the amortization period for the FEI and FBC Implementation O&M deferral accounts with the expected service life of the SAP S/4HANA software and the equivalent depreciation rate, since the O&M costs incurred by FEI and FBC for the implementation would benefit customers over the expected life of the assets. Thus, if the expected service life for the SAP S/4HANA software assets is changed to 8 years or 11 years, then FEI would propose to change the amortization period for the FEI and FBC Implementation O&M deferral accounts to 8 years or 11 years.

Please refer to the response to BCUC IR1 16.3 for a discussion on why FortisBC considers a 10-year expected service life for the SAP S/4HANA software assets to be the most appropriate. In the response to BCUC IR1 16.3, FortisBC also provides the changes in the levelized rate impacts to both FEI and FBC if the expected service life is changed to 8 years or 11 years. These levelized rate impacts include the changes to the deferral account amortization period to 8 years or 11 years.

18.0 Reference: ACCOUNTING TREATMENT AND RATE IMPACT

Exhibit B-1, Section 6.4.4, pp. 110–111

Application and Preliminary Stage Development Costs Deferral Account

On page 111 of the Application, FortisBC proposes to establish a new non-rate base Application and Preliminary Stage Development Costs deferral account, attracting a WACC return, for each of FEI and FBC. FortisBC proposes to transfer the balances in the non-rate base deferral accounts to rate base on January 1 of the year following the decision on this Application and begin amortization over a four-year period.

On page 110 of the Application, FortisBC states:

> Preliminary stage development costs include expenses incurred during the alternatives assessment, vendor engagement through the RFP process, initial development of the preferred solutions, and data conversion activities. FortisBC has incurred actual preliminary stage development costs of $4.881 million from July 2022 to July 2025 and forecasts further costs of $1.088 million (primarily for the data conversion activities for FBC's CIS Plus) to the end of 2025. Of the total preliminary stage development costs, approximately $1.836 million are allocated to FEI and $4.133 million are allocated to FBC, in as-spent dollars.

18.1 Please explain how the Application and Preliminary Stage Development Costs from July 2022 to July 2025 have been recorded in FEI's and FBC's financial reporting to date.

18.1.1 Please clarify whether the Application and Preliminary Stage Development costs incurred are currently attracting any carrying costs (e.g. AFUDC, WACC, other).

18.1.2 Please confirm, or explain otherwise, that the Application and Preliminary Stage Development Costs from July 2022 to July 2025 have not already been recovered by FEI and FBC under FortisBC's prevailing Multi-Year Rate Plan during the period in which they were incurred.

Response:

The actual preliminary stage development costs incurred from July 2022 to July 2025[18] have been recorded in deferral accounts for accounting purposes, attracting carrying costs at FEI's and FBC's respective weighted average cost of capital (WACC). These deferral accounts are not

[18] The actuals from July 2022 to July 2025 do not include any Application costs. Also, and as further discussed in the response to COSCO IR1 12.2, July 2022 was the date when the deferral account was first created internally for accounting purposes. The actual costs recorded in the deferral account include the transfer of actual costs incurred by FBC prior to July 2022 for the preliminary evaluation of CIS alternatives.

shown in FEI's and FBC's approved financial schedules[19] or Annual Reports that were filed with the BCUC to date because the deferral accounts have not yet been approved by the BCUC and are being requested as part of this Application. Consistent with FortisBC's approach taken for preliminary stage development costs related to Major Projects, FortisBC has not yet included these costs in FEI's or FBC's revenue requirements and therefore these costs have not been recovered in rates.

It is typical – and usually necessary – for utilities to incur preliminary stage development costs (or pre-development costs) prior to a regulatory application being filed. The primary reason for this is, prior to filing an application with the BCUC (whether it is for a CPCN Project or a major project under section 44.2 of the *Utilities Commission Act* (UCA)), FEI or FBC must investigate alternatives to the potential project to a Class 4 or 5 level of accuracy and develop the proposed project alternative to a Class 3 level of accuracy. The investigative work and costs to develop the cost estimates, as well as the work required to complete various reports and analysis that are required by the BCUC's CPCN Guidelines, often take many months (or even years) to complete. Instead of requesting a deferral account for these costs at the time that a project is identified (either in a standalone deferral account application or as part of Annual Reviews or other rate setting proceedings), FortisBC typically requests approval of the pre-development costs and application costs as part of the Major Project application. This approach is efficient as it avoids multiple applications to the BCUC and enables the BCUC and interveners to consider the costs within the context of the Major Project application.

Further, it is an established practice with the BCUC for pre-development costs to be recorded in deferral accounts subject to approval sought at the time of the required application to the BCUC for the project. This established practice is illustrated by the following recent examples:

- **FEI's TLSE CPCN Project.** In the BCUC's Decision and Order C-6-25 approving the TLSE CPCN Project, the BCUC approved the establishment as well as the recovery of the TLSE Application and Preliminary Stage Development Cost deferral account with a three-year amortization period. As explained in the TLSE CPCN proceeding, FEI had started to develop the TLSE Project and incurred associated costs since 2020, which was prior to the filing date of the original TLSE CPCN Project application on December 29, 2020, and incurred additional costs in 2023 and 2024 prior to the filing date of the Supplemental Evidence to the TLSE CPCN Project application on October 24, 2024.

- **FEI's AMI CPCN Project.** In the BCUC's Decision and Order C-2-23 approving the AMI CPCN Project, the BCUC approved the recovery of the AMI Application and Feasibility Cost deferral account with a three-year amortization period. As explained in the AMI CPCN proceeding, FEI had started to develop the AMI Project and incurred associated costs in 2015, which was prior to the filing date of the AMI CPCN Project application on May 5, 2021.

[19] Submitted to the BCUC as part of FEI's and FBC's Annual Reviews for each year from 2022 to 2025.

- **FEI's Pattullo Gas Line Replacement (PGR) CPCN Project.** In the BCUC's Decision and Order C-2-21 approving the PGR CPCN Project, the BCUC approved the recovery of the Application and Preliminary Stage Development Costs deferral account with a three-year amortization period. As explained in the PGR CPCN proceeding, the project development costs recorded in the deferral account included actual costs incurred by FEI up to January 31, 2020, which was prior to the filing date of the PGR CPCN Project application on August 31, 2020.

- **FEI's Inland Gas Upgrades (IGU) CPCN Project.** In the BCUC's Decision and Order G-12-20 approving the IGU CPCN Project, the BCUC approved the recovery of the Application and Preliminary Stage Development Costs deferral account with a three-year amortization period. As explained in the IGU CPCN application, the project development costs recorded in the deferral account included actual costs incurred by FEI prior to the filing date of the IGU CPCN Project application on December 17, 2018.

FortisBC has relied on this established practice with the BCUC regarding the treatment of pre-development and application costs in bringing forward their deferral account requests in the Application. Consistent with the BCUC's CPCN Guidelines, the Companies were required to spend pre-development dollars to develop an application to the BCUC standards to receive approval for the project. FortisBC had to undertake the necessary pre-development work to determine whether the potential major project is necessary or feasible. Had FortisBC not incurred costs for the pre-development work, the Companies would not be able to meet the BCUC's expectations for the Application and there would not be any basis for the Companies to present the proposed project for acceptance by the BCUC. Rejecting the establishment of the deferral account as well as the recovery of costs incurred only based on the timing of the deferral account request, without consideration of whether the costs were necessary or reasonable, would be inconsistent with the established practice of the BCUC and the treatment approved by the BCUC for pre-development costs (and application costs) incurred prior to the filing of the application in past projects, and would therefore be unfair and unreasonable.

18.2 Please explain why FortisBC did not apply to the BCUC for a deferral account to record the Application and Preliminary Stage Development Costs as part of previous annual review or rates proceedings.

Response:

Please refer to the response to BCUC IR1 18.1.

18.3 Please explain how the establishment of a new non-rate base deferral account to record Application and Preliminary Stage Development Costs incurred from July 2022 to July 2025 does not constitute retroactive ratemaking. If this constitutes retroactive ratemaking, please explain whether and why an exception should be made nonetheless in this instance.

Response:

Please refer to the response to BCUC IR1 18.1.

18.4 Please further explain why the proposed Application and Preliminary Stage Development Costs deferral account should attract WACC as opposed to WACD financing costs.

Response:

Please refer to the response to BCUC IR1 17.1.

Attachment 2.3

REFER TO LIVE SPREADSHEET MODELS

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Attachment 5.3

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