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October 30, 2020

Ms. Marija Tresoglavic
Acting Commission Secretary and Manager
Regulatory Support
British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC V6Z 2N3

Dear Ms. Tresoglavic:

RE: Project No. 1598975
British Columbia Utilities Commission (BCUC or Commission)
British Columbia Hydro and Power Authority (BC Hydro)
Supply Chain Applications Project (SCA Project)
CONFIDENTIAL Semi-Annual Progress Report No. 3
April 2020 to September 2020 (Report)

BC Hydro writes to provide its confidential Report in compliance with BCUC Order No. G-78-19. The Report is consistent with other project-specific progress reports filed with the BCUC and provides an update on the SCA Project's scope and activities, cost, benefits, risks, and schedule, as applicable, over the period from April 1, 2020 to September 30, 2020.

On August 4, 2020, BC Hydro successfully placed the SCA Project into service and is currently using the SCA Solution to manage its supply chain processes. Under normal circumstances, implementing a new Enterprise Resource Planning technology system and process is very challenging. The added complexities of implementing the Supply Chain Applications Solution as the Project team and internal and external end users are working remotely, in response to the COVID-19 pandemic, underscore the significance of successfully achieving this milestone.

BC Hydro is providing the confidential Report to the Commission only. A public version of the Report is being filed under separate cover redacting commercially sensitive and contractor-specific information and is available at www.bchydro.com.

BC Hydro seeks this confidential treatment pursuant to section 42 of the *Administrative Tribunals Act* and Part 4 of the Commission's Rules of Practice and Procedure.

October 30, 2020
Ms. Marija Tresoglavic
Acting Commission Secretary and Manager
Regulatory Support
British Columbia Utilities Commission
Supply Chain Applications Project (SCA Project)
CONFIDENTIAL Semi-Annual Progress Report No. 3
April 2020 to September 2020 (Report)

For further information, please contact Chris Sandve at 604-974-4641 or by email at bchydroregulatorygroup@bchydro.com.

Yours sincerely,



Fred James
Chief Regulatory Officer

cu/tl

Enclosure

BC Hydro Supply Chain Applications Project

Progress Report No. 3

April 1, 2020 to September 30, 2020

PUBLIC

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1 **Background**

2 British Columbia Hydro and Power Authority (BC Hydro) must procure materials and
3 services on a day to day basis in order to maintain safe and reliable electric service
4 to customers. Third party materials and service acquisitions are expected to be in
5 the order of \$2 billion annually for at least the next ten years. To meet BC Hydro's
6 current and future business needs, reduce risk, and provide benefits for supply chain
7 activities, BC Hydro is replacing its current supply chain IT platform with the Supply
8 Chain Applications Project (**SCA Project** or **Project**).

9 The new supply chain software and business processes to be put in place by the
10 SCA Project are expected to provide the necessary supply chain tools for BC Hydro
11 to more efficiently and effectively manage its third party materials and service
12 acquisitions. The benefits of the SCA Project will include improved efficiency, risk
13 reduction, and cost savings for materials and services procured over the life of the
14 new SAP supply chain system.

15 In October 2017, the British Columbia Utilities Commission (**BCUC**) issued Order
16 No. G-158-17 accepting the SCA Project's capital expenditure schedule of
17 \$22.5 million to \$29.7 million required to complete work up to the end of the
18 Definition Phase and directed BC Hydro to file a Phase Two Verification
19 Report (**Verification Report**) at the end of the Definition Phase. BC Hydro filed the
20 Verification Report in October 2018, and in April 2019 the BCUC issued Order
21 No. G-78-19 accepting the capital expenditure schedule of \$38.5 million to
22 \$45.4 million to complete the Implementation Phase.

23 BC Hydro was directed to file semi-annual progress reports on the SCA Project.
24 BC Hydro filed Progress Report No. 1 in October 2019 and Progress Report No. 2 in
25 April 2020. BC Hydro filed an update with the BCUC on the changes to the Project's
26 cost and schedule as a result of the measures implemented in response to the
27 COVID-19 pandemic on June 15, 2020. Progress Report No. 3 covers the period

1 from April 1, 2020 to September 30, 2020 (the **reporting period**) and includes the
2 changes reported in the June 15, 2020 update letter.

3 **2 Project Status**

4 In June 2020, BC Hydro's Board of Directors (**Board of Directors**). approved an
5 11-week extension to the project schedule due to the COVID-19 pandemic. The
6 extension allowed BC Hydro to train 1,000 end users based on a remote delivery
7 model. To accomplish this BC Hydro revised the training materials to be suitable for
8 remote learning and planned smaller training sessions more conducive for remote
9 learning. The Project team was able to successfully complete these additional
10 activities and manage the risks caused by the COVID-19 pandemic over during the
11 extension period.

12 The SCA Project was successfully placed into service (go-live date) on
13 August 4, 2020. Under normal circumstances, implementing a new Enterprise
14 Resource Planning technology system and process is very challenging. The added
15 complexities of implementing the Supply Chain Applications Solution (**SCA**
16 **Solution**) as the Project team and internal and external end users are working
17 remotely in response the COVID-19 pandemic underscore the significance of
18 successfully achieving this milestone.

19 Since the go-live date, the Project team has been focused on supporting the SCA
20 Solution end users with ongoing training, resolving data conversion issues, and
21 prioritizing and correcting system defects. As is expected with any large and
22 complex technology system, there have been defects identified since the go-live
23 date. The identified defects are being resolved as quickly as possible. Overall, the
24 number of high severity defects post go-live are decreasing, and BC Hydro is
25 currently using the SCA Solution to manage its supply chain processes.

26 Providing support to end users while the majority of the Project team and the end
27 users work remotely due to the COVID-19 restrictions has reduced the effectiveness

1 of support to end users and may require the extension of some stabilization
2 activities. BC Hydro is currently assessing how to best provide effective support to
3 the system end users, and what stabilization activities need to be extended and the
4 support required through to the end of the stabilization period.

5 This section discusses the status of the Project as at the end of the reporting period.

6 **Table 1 Project Status Dashboard**

7 ● Green: No Concerns; ● Amber: Some Concerns but in Control; ● Red: Serious Concerns

Status as of:	September 30, 2020	Overall: ●
Overall Assessment	● Despite the challenges caused by the COVID-19 pandemic, the Project was successfully placed in service on August 4, 2020. However, there is a risk that these challenges may require the extension of some stabilization activities, which would require a draw on the Project reserve. This is the reason for an amber overall rating for the Project. The assessment of what stabilization activities may be extended is currently underway. The conclusion from the assessment will be discussed in the next progress report.	●
Scope & Activities	● There have been no material changes to the Project scope since the start of the Implementation phase. There were changes to planned activities in this reporting period, particularly due to the need to deliver training remotely in order to meet social distancing guidelines. Please refer to section 3 for more information on the changes to planned Project activities.	●
Cost	● In June 2020, the Board of Directors approved an increase in the Project's Authorized Cost by \$3 million and a draw of \$2.9 million on the Project reserve to cover the 11-week extension to the schedule resulting from the COVID-19 pandemic. As a result, the Implementation phase Authorized Cost estimate is now \$46.1 million, which exceeds the capital expenditure range of \$38.5 million to \$45.4 million accepted by the BCUC to complete the Implementation phase. The forecast Authorized Cost estimate includes a Project reserve balance of \$2.1 million, which was established due to the risk that there may be a need to extend some stabilization activities to provide better support to end users. BC Hydro is currently assessing which stabilization activities to extend and the Project reserve draw required to fund the extended activities. Please refer to section 4 for more information on the Project cost.	●
Benefits	● At the end of the Implementation Phase, the Project's planned baselines, metrics, measures, and / or the tracking plan have been updated. Please refer to section 5.	●

Status as of:	September 30, 2020	Overall:	●
Risk	● The rating for Project risk remains amber this period. While BC Hydro was able to mitigate a number of risks resulting from the COVID-19 pandemic and successfully placed the SCA Solution into service on August 4, 2020, a risk remains that delivering training and initial stabilization support in a remote environment is less effective than the originally planned in-person models. The Project is currently assessing extending some stabilization activities.		
Schedule	● In June 2020, BC Hydro's Board of Directors approved an 11-week extension to the Project schedule as a result of the COVID-19 pandemic. On August 4, 2020, the Project achieved its most significant milestone and successfully placed the SCA solution into service. BC Hydro is currently assessing the need to extend some stabilization activities to ensure end users are properly supported as the Project team and end users continue to work remotely. Please refer to section 7 for further information on the changes to the Project schedule.		

3 Project Scope & Activities

There were no material changes in Project scope in the reporting period. This section covers the major accomplishments and work completed in the reporting period as well as provides updates on any planned activities in the next reporting period.

There were two changes to Project activities in the reporting period as outlined in [Table 2](#) below. [Table 2](#) provides a summary of the identified change and the impact of the change. The cost implication of these changes is discussed in the section [4](#).

Table 2 Identified Changes in Activities and Impact on the SCA Project

Description of Change	Identified Impact
Additional BC Hydro activities due to the COVID-19 pandemic, including updating of training materials and delivery schedules to be suitable for remote delivery, and additional system testing.	Additional time and cost, mitigated risk
Additional System Integrator activities to complete an additional cycle of data conversion testing, and to complete additional technical system enhancements.	Additional cost and mitigated risk

3.1 Major Accomplishments and Work Completed

During this reporting period, the Project achieved its most significant milestone by successfully placing the SCA Solution into service. The following sections discuss

1 this key accomplishment in more detail and describe the other major
2 accomplishments achieved during the current reporting period.

3 **3.1.1 Configuration**

4 System configuration activities were completed in a prior reporting period.

5 **3.1.2 Detailed Design and Writing of Custom Program Code**

6 Detailed design activities and custom program code development activities were
7 completed in a prior reporting period for the SCA Solution's core transactional
8 components. The outstanding development for the SCA Solution's reporting
9 components was materially completed this period. Some minor development work
10 on reporting dashboards remains outstanding, and will be completed in the next
11 period.

12 **3.1.3 Data Migration**

13 The Project's data migration activities were successfully completed in this reporting
14 period.

15 **3.1.4 Go-live Planning**

16 The go-live planning activities were completed in this reporting period and the SCA
17 solution was successfully placed into service on August 4, 2020. The go-live event
18 spanned three weekends from July 25 to August 9, with the most of the activities
19 occurring over the first weekend in August. The SAP system was re-opened for use
20 on August 4, 2020.

21 **3.1.5 Testing**

22 Integration and user-acceptance testing of the SCA Solution were completed in the
23 prior reporting period. Defect resolution continued throughout this reporting period,
24 and the Project achieved the prior to go-live defined defect quality target of no critical
25 impact defects (i.e., defects that would prevent the SCA Solution from being placed
26 into service), fewer than 10 high impact defects (i.e., defects that will seriously impair

1 the SCA Solution’s ability to operate), and fewer than 50 medium severity defects
2 (i.e., defects that have a moderate impact on the SCA Solution’s ability to operate).

3 **3.1.6 End-User Documentation & Training**

4 During this reporting period, the development of end-user training material was
5 completed. This included revising the training materials originally intended for
6 in-person training to be suitable for remote training. The Project team also delivered
7 remote training to over 1,300 users through a series of 66 on-line classes. In
8 addition, over 2,000 employees and contractors completed on-line training courses,
9 completing almost 7,800 course events. Post go-live remote training classes are
10 currently underway. The Project has also delivered approximately 50 refresher
11 training courses since go-live, and is currently assessing what additional refresher
12 training is required to support end users through to the end of the stabilization
13 period.

14 **3.1.7 Value Assurance Services**

15 Delivery of the SAP value assurance services was completed in this reporting
16 period. SAP continues to work with the Project team to help prioritize and resolve
17 issues with the SAP and Ariba software. SAP will continue to deliver the SAP value
18 assurance services until the end of October 2020.

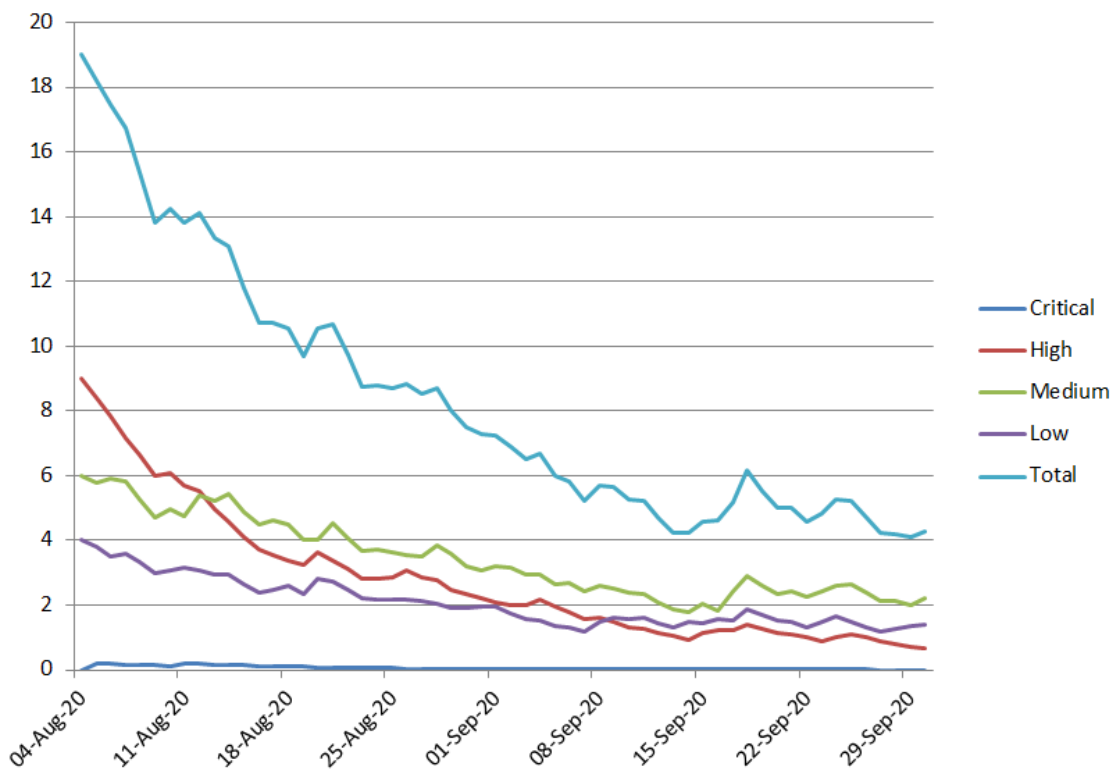
19 **3.1.8 Stabilization Activities**

20 Since being placed into service, the priority has been to stabilize the SCA Solution
21 system. Stabilization activities initially included correcting system access issues and
22 fixing data errors, and with the focus now on fixing technical system defects and
23 providing refresher training to end users.

24 With any large and complex technology system, there is an expectation that
25 technical defects will be identified once the solution is placed into service. Since
26 being placed into service, 353 defects have been logged, 228 of which were

1 resolved by September 30, 2020. While defects continue to be identified, their arrival
 2 rate has decreased in the two months since the SCA Solution has been in
 3 production. During the first two weeks, defects were logged at an average rate of
 4 nine per day. Over the latter two weeks of September, the average rate logged
 5 dropped to approximately 4.6 defects per day. This falling average is highlighted in
 6 [Figure 1](#) below.

7 **Figure 1 Average Defect Daily Arrival Rate**



8 **3.2 Plans for Next Six Months**

9 Work to be started or completed in the next reporting period includes the following:

- 10 • Delivering additional refresher training;
- 11 • Completion of report development, testing, and user training; and

-
- 1 • Ongoing execution of stabilization activities including the completion of the
2 System Integrator’s warranty period.

3 **3.3 Quality Assurance Advisor’s Monthly Report**

4 KPMG completed its services as the Quality Assurance Advisor on the Project in this
5 reporting period. KPMG’s final deliverable was the Go-Live Readiness Report which
6 was delivered to the SCA Projects’s steering committee in July 2020. Please see
7 KPMG’s Go-Live Readiness Report attached as Appendix A.

8 **4 Project Cost**

9 **4.1 Project Cost Summary**

10 In Report No. 2, the total Project Forecast Cost Range was \$77.3 million to
11 \$79.3 million. This included the actual total cost for the pre-Implementation phase of
12 \$25.5 million, the total capital forecast cost range for the Implementation phase of
13 \$42.2 million to \$44.2 million, and the estimated operating cost to complete the
14 Implementation phase of \$9.7 million.

15 In June 2020, due to the impact of the measures taken in response to the COVID-19
16 pandemic, the Board of Directors approved an additional Project reserve of
17 \$3 million, increasing the total Project reserve balance to \$5 million. The Board of
18 Directors also approved a draw on the Project reserve of \$2.9 million (\$0.7 million
19 operating and \$2.2 million capital) to cover the costs of transitioning the training of
20 1,000 end users to a remote delivery model and mitigating the risk of losing key
21 project resources as a result of the associated 11-week schedule extension.

22 The total Project Forecast Cost Range is now \$80.2 million to \$82.3 million. [Table 3](#)
23 shows the current Project forecast cost and the actuals-to-date. Also included in this
24 section are explanations of the variances between the Current Forecast Cost and
25 the accepted Verification Report Cost Estimate.

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Table 3 Project Expenditure Summary – Forecast and Actual Cost

L i n e #	Description	A	B	C	D	E	F	G	H	I	J	K	L	M	N
		Verification Report Cost Estimate			Prior Report's Forecast	Current Forecast Cost			Forecast Cost Analysis				Actual Cost Analysis		
		CapEx Cost	OpEx Cost	Total Cost	Total Cost	CapEx Cost	OpEx Cost	Total Cost	\$M [G - D]	\$M [G - C]	% [G / C]	Notes	Actual Cost-to-Date \$M	% of Current Forecast [L / G]	% of Verification Report Cost Estimate [L / C]
1	Pre-Implementation Costs														
2	Supply Chain Transformation Blueprint (Early Design Costs)	7.3	0.0	7.3	7.3	7.3	0.0	7.3	0.0	0.0	100.0%		7.3	100.0%	100.0%
3	Identification Phase Costs	0.0	1.2	1.2	1.2	0.0	1.2	1.2	0.0	0.0	100.0%		1.2	100.0%	100.0%
4	Definition Phase Costs	15.3	1.6	16.9	16.9	15.4	1.5	16.9	0.0	0.1	100.3%		16.9	100.0%	100.3%
5	Total Pre-Implementation Phase Cost	22.6	2.8	25.4	25.5	22.7	2.7	25.5	0.0	0.1	100.2%	1	25.5	100.0%	100.2%
6	Implementation Phase Costs														
7	System Integrator's Direct Costs														
8	Realization														
9	Final Preparation														
10	Stabilization														
11	<i>Total System Integrator's Estimated Cost</i>														
12	BC Hydro's Internal Direct Cost														
13	Realization														
14	Final Preparation														
15	Stabilization & Extended Onboarding														
16	<i>Total BC Hydro's Internal Estimated Cost</i>														
17	Total Implementation Phase Direct Costs														

L i n e #	Description	A	B	C	D	E	F	G	H	I	J	K	L	M	N
		Verification Report Cost Estimate			Prior Report's Forecast	Current Forecast Cost			Forecast Cost Analysis				Actual Cost Analysis		
		CapEx Cost	OpEx Cost	Total Cost	Total Cost	CapEx Cost	OpEx Cost	Total Cost	\$M [G - D]	\$M [G - C]	% [G / C]	Notes	Actual Cost-to-Date \$M	% of Current Forecast [L / G]	% of Verification Report Cost Estimate [L / C]
18	Contingency (% * Direct Future Costs)														
19	Interest During Construction	2.3	0.0	2.3	2.3	2.5	0.0	2.5	0.2	0.2	110.3%	10	2.5	98.5%	108.7%
20	Total Implementation Phase Expected Cost Estimate	38.5	7.4	45.9	45.7	51.8	10.4	54.8	3.0	8.9	119.3%		52.2	95.3%	113.7%
20	Total Project Expected Cost Estimate	61.1	10.2	71.3	71.3	77.3	13.1	80.2	2.9	8.9	112.5%		77.6	96.8%	108.9%
21	Project Reserve - Reserve For Known Risks	1.3	0.0	1.3	0.3	1.8	0.3	2.1	1.8	0.8	161.5%		0.0	0.0%	0.0%
22	Project Reserve - Incremental Contingency	5.4	1.1	6.5	1.7	0.0	0.0	0.0	-1.7	-6.5	0.0%		0.0	n/a	0.0%
23	Incremental Interest During Construction on project reserve	0.2	0.0	0.2	0.1	0.0	0.0	0.0	-0.1	-0.2	0.0%		0.0	n/a	0.0%
24	Total Project Reserve	6.9	1.1	8.0	2.0	1.8	0.3	2.1	0.1	-5.9	26.3%	11	0.0	0.0%	0.0%
25	Total Project Authorized Cost Estimate	68.0	11.3	79.3	79.3	79.3	13.5	82.3	3.0	3.0	103.8%		77.6	94.3%	97.9%

1 Numbers may not add up due to rounding

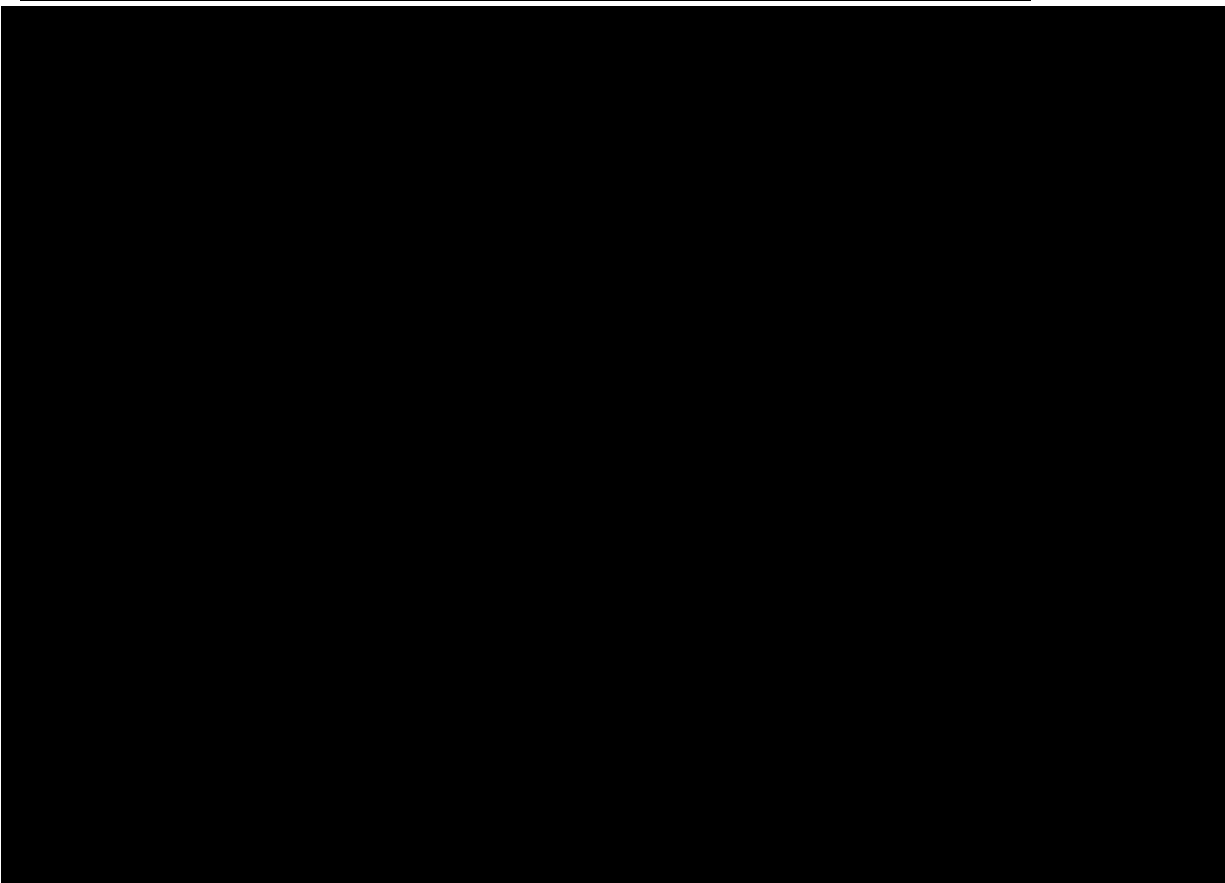
1 The notes below explain the variance between the Current Forecast Cost and the
2 Verification Report Cost Estimate and the total forecast as at the end of the prior
3 reporting period. Notes refer to notes 1 to 11 in Column K of [Table 3](#), referencing the
4 change in Columns H and I:

5 **Changes in Pre-Implementation Phase Costs:**

- 6 1. There has been no change in the pre-Implementation phase costs from what
7 was reported in Progress Report No. 2. The change from the Verification
8 Report was reported in Progress Report No. 1.

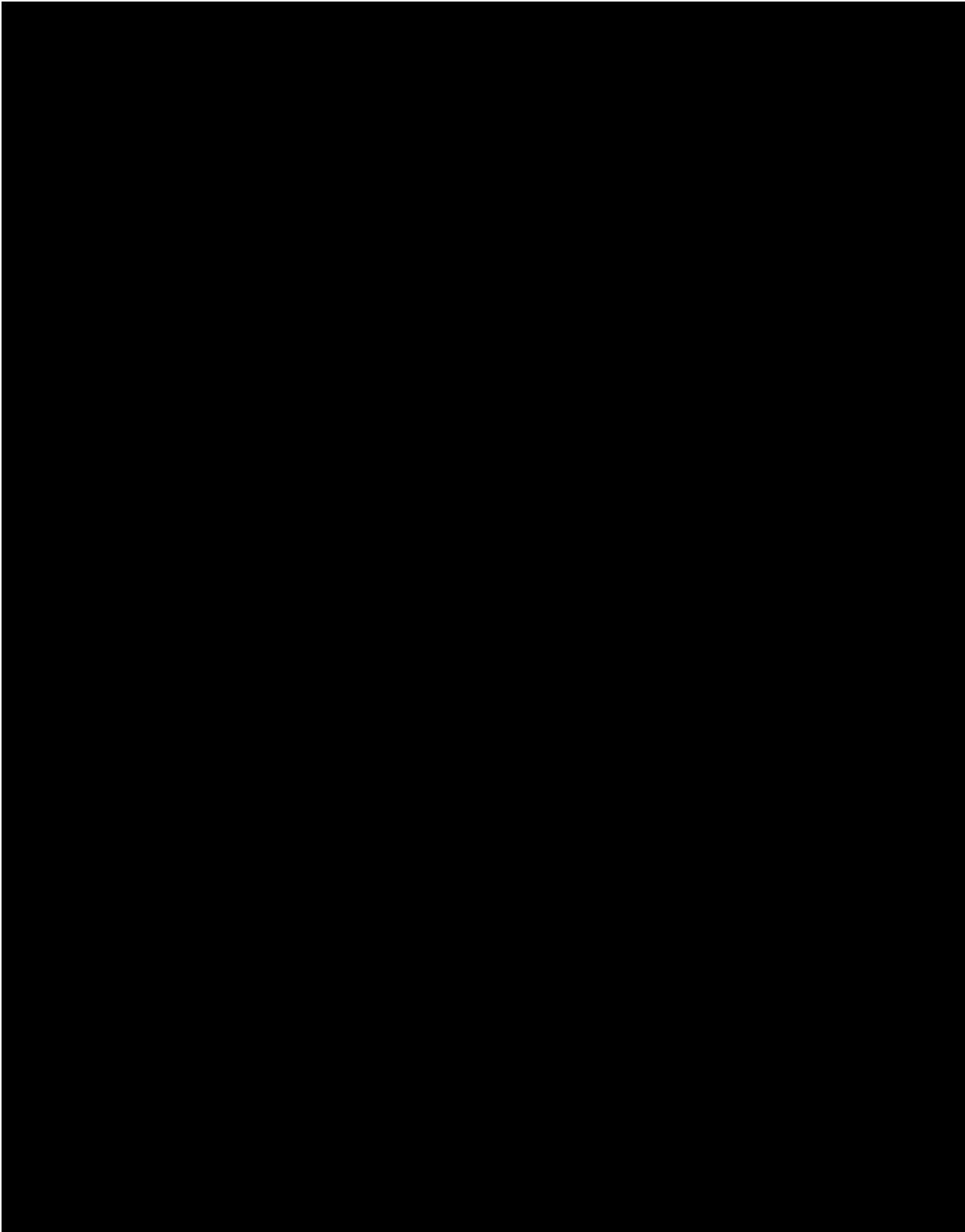
9 **Changes in System Integrator Implementation Phase Direct Costs:**

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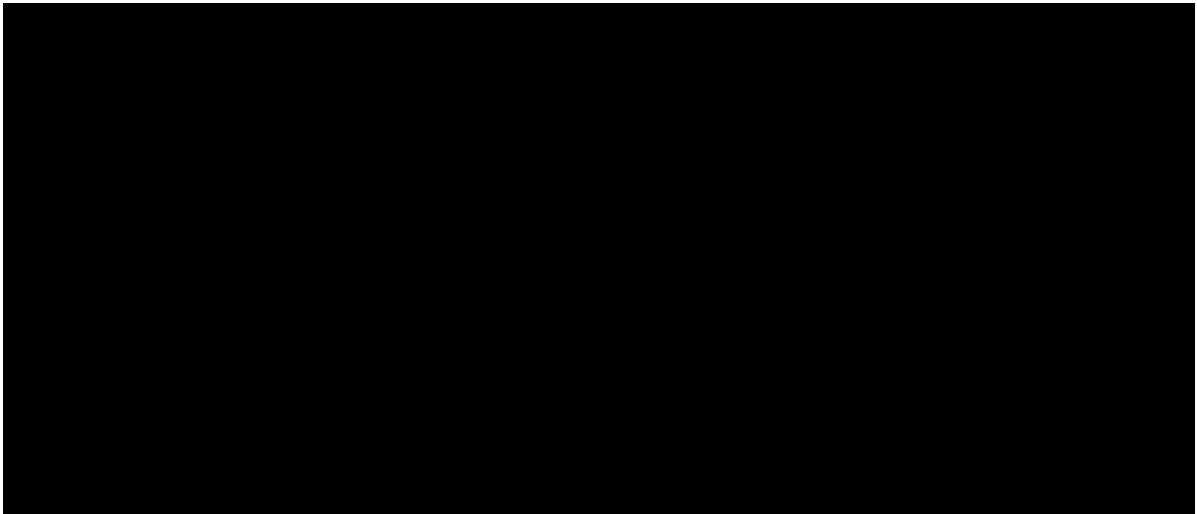


1 **Changes in BC Hydro Direct Costs:**

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- 10 10. In this reporting period, the forecast Interest during Construction (**IDC**) for the
11 Implementation phase has increased by \$0.23 million due to the 11-week
12 change in the In-Service Date due to the COVID-19 pandemic.
- 13 11. The total Project reserve has decreased by a net amount of \$5.8 million from
14 the Verification Report. The Board of Directors approved a draw on the Project
15 reserve in this reporting period totaling \$2.9 million to cover the costs
16 associated with the delay resulting from the COVID-19 pandemic. The draw
17 was offset by an increase of \$3 million in Project reserves approved by the
18 Board of Directors in June 2020. The draw on Project reserve approved by the
19 Board of Directors is outlined in [Table 5](#) below. Please refer to section [4.3](#) for a
20 discussion of the draw on the Project reserve.

1 **4.2 Project Contingency**

2 Project contingency draws are approved by the Project Steering Committee, and
3 none of the approved contingency draws are as a result of changes in the project
4 scope.

5 In this reporting period, the extension to the Project schedule due to the COVID-19
6 pandemic resulted in draws on contingency of [REDACTED] to cover the [REDACTED]

7 [REDACTED]
8 There was a deposit into contingency this reporting period of \$0.7 million. The
9 Project reserve draw is discussed further in section [4.3](#). The contingency at the end
10 of the reporting period is [REDACTED]

11 [Table 4](#) provides a detailed description of the project contingencies drawn this
12 period.

1
2

**Table 4 Project Contingency Draws & Deposits:
Component Breakdown**

Description	Impact	Capital Contingency (\$ '000) ¹	Operating Contingency (\$ '000) ¹	Total Contingency (\$ '000) ¹
Contingency at the start of reporting period				
Contingency Deposits this period				
Project Reserve Draw June 2020				
Subtotal Contingency Deposits this period				
Contingency Draws this period				
Additional BC Hydro cost related to COVID-19 schedule extension	Schedule change and additional cost			
Additional PwC services for approved change requests and extra data conversion testing	Schedule change and additional cost			
Subtotal Contingency Draws this period				
Contingency at the end of reporting period				

3 1. Numbers may not add up due to rounding

4 **4.3 Project Reserve**

5 The Board of Directors have delegated approval authority for further draws on
6 Project reserve to BC Hydro’s Chief Executive Officer. The Project cannot access
7 the remaining Project reserve without first obtaining approval from the Steering
8 Committee and then the Chief Executive Officer. To secure the release of the
9 Project reserve, a formal expenditure authorization request revision is required.

10 In June 2020, the Board of Directors approved a draw on Project reserve of
11 \$2.9 million to cover additional costs associated with the 11-week extension in the
12 schedule due to the COVID-19 pandemic, including additional contingency and IDC.
13 [Table 5](#) provides a component breakdown of the \$2.9 million Project reserve draw.

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Table 5 Project Reserve Draw: Component Breakdown

Description of Change	Capital Reserve (\$ '000) ¹	Operating Reserve (\$ '000) ¹	Total Reserve (\$ '000) ¹
Additional BC Hydro direct costs due to COVID-19 delay			
Additional PwC costs due to COVID-19 delay			
Contingency (10% of BC Hydro direct costs still to be spent)			
Incremental Interest During Construction (IDC)			
Total Reserve Draw	2,164	696	2,860

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1. Numbers may not add up due to rounding

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[Table 6](#) below provides the remaining Project reserve and highlights the changes in the Project reserve from what was provided in the Verification Report.

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Table 6 Project Reserve Balance

Description	Verification Report (\$ millions)	Report No. 3 (\$ millions)
Project Reserve for Unknown Risks	6.5	0.0
Project Reserve for Known Risks		
Offshore Development risk	1.0	0.0
Unifier to SAP interface risk	0.3	0.0
Remote training delivery and Stabilization stage user support may require extending the stabilization period	N/A	2.1
Incremental Interest During Construction (IDC)	0.2	0.0
Remaining Project Reserve¹	8.0	2.1

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1. Numbers may not add up due to rounding

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4.4 Summary of Individual Contracts Exceeding \$3.0 million

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The table below provides a summary of the total contract with PwC, the System Integrator, as reflected in the Statements of Work. There are no other contracts exceeding \$3 million.

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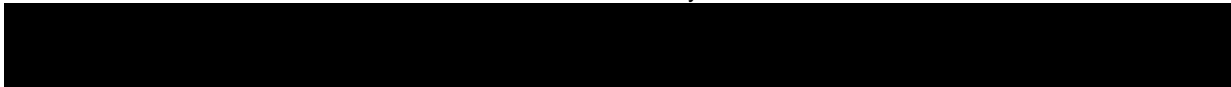
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Table 7 Summary of Contracts exceeding \$3.0 million

No.	Supplier and Scope of Supply		Initial Contract Value (\$ million)	Forecast Contract Cost (\$ million)	Actuals to September 30, 2020 (\$ million)
1	PwC	System Integrator Costs – Design Stage			
2	PwC	System Integrator Costs – Implementation Phase			

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- 1 Total fixed fee as of Statement of Work #2 signed on February 9, 2018
- 2 This is the final contract amount for the work completed in the Design Stage.
- 3 Total fixed fee as of Statement of Work #3 signed on October 19, 2018.
- 4 Actual costs to date based on PwC's cost accrued in BC Hydro's accounts.



9

5 Project Benefit Realization Plan

10 BC Hydro updated the SCA Project's benefits baselines and metrics and measures
11 in the Implementation phase. BC Hydro provides the updated baselines, metrics and
12 measures in the Benefits Realization Update Report (**Benefits Report**) filed on
13 October 30, 2020. Please refer to the Benefits Report for the discussion on the
14 updates to the Benefits Realization Plan.

15

6 Project Risks

16 In this section, BC Hydro provides in [Table 8](#) updated mitigation plans and status,
17 and updates on the probability and impact assessments for risks identified in the
18 Verification Report. Project risks continue to be managed through the risk
19 management process. Please refer to Appendix B for the Project Risk Register.

20 Overall Project risk has decreased in this reporting period as the Project has
21 achieved its most significant milestone by placing the SCA Solution successfully into
22 service. BC Hydro was largely able to mitigate the risks presented by the COVID-19
23 pandemic, and while the pandemic did result in an 11-week schedule extension, no
24 key resources left the project as a result of the delay. The pandemic, and the

1 resulting need for the Project team to work remotely has adversely impacted early
2 stabilization activities, and BC Hydro is currently assessing the need to extend some
3 stabilization activities.

4 BC Hydro has grouped the risks into the following four categories:

- 5 1. **Business risk:** These risks have the potential to impact BC Hydro’s ability to
6 realize business benefits from the project. They include: how the extent of
7 change required to current business processes impacts BC Hydro’s ability to
8 realize the benefits upon which the project is justified (the supporting of the
9 Supply Chain Business Requirements, the closing of the capability gaps and
10 the achievement of monetized benefits); and the risk the business experiences
11 a reduction in productivity during the transition period from the existing to new
12 supply chain;
- 13 2. **Technology risk:** The technology risk assessment considers the maturity of
14 the technologies used to deliver the technical solution. Overall, the SAP supply
15 chain IT configuration is very mature and considered low risk from both a
16 probability and consequence perspective. However, there are a few elements
17 included in the project design which are less mature and for which limited
18 deployment experience exists at BC Hydro;
- 19 3. **Project Delivery risk:** The project delivery risk assessment considers the key
20 project delivery related risks that have been identified as having the potential to
21 impact BC Hydro’s ability to deliver the project on time, on budget and with
22 quality; and
- 23 4. **Readiness risk:** The readiness risk assessment considers the key risks related
24 to organizational readiness that has the potential to impact BC Hydro’s ability to
25 successfully undertake the project.

1

Table 8 Implementation Phase – Risks and Risk Mitigation Summary

No.	Risk Category	Current Risk Status	Risk Event / Threats	Updated Mitigation Plans & Mitigation Assessment	Verification Report		Report No. 3	
					Mitigation Status	Probability and Impact	Mitigation Status	Probability and Impact
1	Business	Active	Risk that the scale of business process changes is too large to be absorbed successfully by BC Hydro.	<p>Change management business engagement activities continue to be executed according to plan. Impacted business groups highly engaged in development of detailed transition and readiness plans.</p> <p>Governance processes continue to function effectively.</p> <p>Previous plans regarding the extended stabilization period and the development of detailed benefits realization plans remain unchanged.</p>	In Progress	Medium probability; medium impact.	In Progress	Medium probability; medium impact.
					In Progress		In Progress	
					In Progress		In Progress	

No.	Risk Category	Current Risk Status	Risk Event / Threats	Updated Mitigation Plans & Mitigation Assessment	Verification Report		Report No. 3	
					Mitigation Status	Probability and Impact	Mitigation Status	Probability and Impact
2	Business	Active	Risk that reduced productivity is experienced by the business while it transitions to the new supply chain	<p>Change management business engagement activities continue to be executed according to plan. Impacted business groups highly engaged in development of detailed transition and readiness plans. The need to work remotely may reduce the effectiveness of initial stabilization and user-support activities. This increases the impact of this risk materializing from low to medium.</p> <p>Previous plans regarding the extended stabilization period remain unchanged.</p>	In Progress	High probability; low impact.	In Progress	High probability; medium impact.
					Planned		Planned	
3	Technology	Inactive	Risk that integration between SAP Fiori and UI5 screens is more costly to develop than anticipated	Development completed within budget.	Monitoring	Low probability; Low impact	Complete	Risk has passed

No.	Risk Category	Current Risk Status	Risk Event / Threats	Updated Mitigation Plans & Mitigation Assessment	Verification Report		Report No. 3	
					Mitigation Status	Probability and Impact	Mitigation Status	Probability and Impact
4	Technology	Inactive, Updated	Risk that interfaces to be developed between SAP and Unifier Construction Contract Management are new to BC Hydro, leading to unclear business needs	Confirmed that the additional interface is not required.	Monitoring	Low probability; Impact estimated at \$0.3 million	Complete	Risk has passed
5	Project Delivery	Inactive	Risk of adverse or delayed British Columbia Utilities Commission Order		Complete	Risk has passed	Complete	Risk has passed
6	Project Delivery	Inactive	Risk of requirement to undertake a protracted regulatory process in order to proceed with Implementation phase work	Regulatory process completed without disruption to project timeline.	Monitoring	Low probability; High impact	Complete	Risk has passed

No.	Risk Category	Current Risk Status	Risk Event / Threats	Updated Mitigation Plans & Mitigation Assessment	Verification Report		Report No. 3	
					Mitigation Status	Probability and Impact	Mitigation Status	Probability and Impact
7	Project Delivery	Inactive, Updated	Risk that the proposed offshore development model is determined to be impractical or ineffective. As discussed in section 2.3.2.1 [of the Verification Report], the benefits of offshore development include, but not limited to, lower cost and a 24-hour development cycle due to having resources in another time zone.	Other than fixing remaining system defects, offshore development is essentially complete. Quality issues related to offshore development contributed to delays in system build and testing activities resulting in the need to access the Project reserve component for known risks.	Monitoring	Low probability; impact estimated at \$1 million.	Issue Triggered and Risk Mitigated	Issue Triggered and Risk Mitigated
8	Project Delivery	Inactive	Risk of unsuccessful System Integrator Request for Proposal	Closed prior to filing the Verification Report.				

No.	Risk Category	Current Risk Status	Risk Event / Threats	Updated Mitigation Plans & Mitigation Assessment	Verification Report		Report No. 3	
					Mitigation Status	Probability and Impact	Mitigation Status	Probability and Impact
9	Project Delivery	Active, Updated	Risk of weak project governance	Risk has materially passed as governance processes continue to function effectively.	In Progress	Low probability; high impact	Monitoring	Very Low probability; high impact
10	Project Delivery	Active, Updated	Risk of poor project management	BC Hydro's project governance processes continue to work effectively. The impact of this risk has decreased given that the project has moved into stabilization which focuses on issue resolution and requires less project planning and management.	Monitoring	Medium probability; high impact	Monitoring	Medium probability; low impact
11	Project Delivery	Active, Updated	Risk of lack of clear Supply Chain Business Requirements	High priority requirements not covered in the design being reviewed for possible inclusion as system enhancements.	Monitoring	Low probability; Medium impact	Monitoring	Low probability; Medium impact
12	Project Delivery	Active	Risk of scope creep, unnecessary complexity and customization	Project change control processes functioning effectively for managing minor design changes. No material scope changes requested or approved. No significant scope risks exist currently.	Monitoring	Low probability; medium impact	Monitoring	Low probability; medium impact

No.	Risk Category	Current Risk Status	Risk Event / Threats	Updated Mitigation Plans & Mitigation Assessment	Verification Report		Report No. 3	
					Mitigation Status	Probability and Impact	Mitigation Status	Probability and Impact
13	Project Delivery	Inactive, Updated	Risk of unforeseen PassPort functionality issues	Solution functioning in production without significant issues with existing PassPort system.	Monitoring	Low probability; high impact	Complete	Risk has passed
14	Project Delivery	Active, Updated	Risk of poor quality of delivery by System Integrator	Quality issues were one of the components leading to delays in achieving quality thresholds for the completion of both cycles of integration testing, therefore impacting the overall project schedule.	In Progress	Medium probability; high impact	Issue Triggered and Risk Mitigation	Issue Triggered and Risk Mitigation
15	Project Delivery	Inactive, Updated	Risk of low data quality and or data not being ready according to Project Schedule	Migration to production environment completed successfully.	In Progress	Medium Probability; medium impact	Complete	Risk has passed
16	Readiness	Active, Updated	Risk of lack of availability of BC Hydro non-technology resources	Project continues to operate effectively with planned resource levels. Resources working remotely may impact effectiveness of some activities. There is no change to the probability or impact.	In Progress	Low probability; high impact	In Progress	Low probability; high impact

No.	Risk Category	Current Risk Status	Risk Event / Threats	Updated Mitigation Plans & Mitigation Assessment	Verification Report		Report No. 3	
					Mitigation Status	Probability and Impact	Mitigation Status	Probability and Impact
17	Readiness	Active, Updated	Risk of lack of availability of BC Hydro technology functional sustainment resources	Project continues to operate effectively with planned resource levels. Resources working remotely may impact effectiveness of some activities. There is no change to the probability or impact.	In Progress	Low probability; medium impact	In Progress	Low probability; medium impact
18	Project Delivery	Inactive, Updated	Risk that reporting is not developed in time for initially planned testing dates	Reporting development and testing plans updated based on prioritization of reporting required for go-live. Required go-live reports completed and placed into service on August 4, 2020.			Issue Triggered and Risk Mitigated	Issue Triggered and Risk Mitigated
19	Project Delivery	Inactive, Updated	Risk that training materials are not developed in time for initially planned training delivery dates	Priority training completed prior to go-live per updated project schedule.			Complete	Risk has passed

No.	Risk Category	Current Risk Status	Risk Event / Threats	Updated Mitigation Plans & Mitigation Assessment	Verification Report		Report No. 3	
					Mitigation Status	Probability and Impact	Mitigation Status	Probability and Impact
20	Project Delivery	Active, Updated	Risk that measures taken in response to the COVID-19 pandemic may result in a need to deliver training over an extended period and reduce the effectiveness of training and stabilization activities, resulting in schedule delays and additional costs.	Pre-go live training completed as per updated plan and system successfully placed into service August 4, 2020, removing a significant portion of the risk. Residual risk remains that reduced effectiveness of remote training delivery and initial stabilization support will slow system adoption. Planning currently underway to extend some stabilization activities as a result.			In Planning for residual risk	High probability; medium impact
21	Project Delivery	Active, Updated	Risk that a significant portion of the project team or key individuals within the project team are infected with COVID-19	Project team continues to work remotely. No resources lost due to COVID-19 or the resulting schedule extension.			In Progress	Very low probability; critical impact

1 **7 Project Schedule**

2 In this section, BC Hydro provides the updated Project schedule and explains
3 changes in the Project's schedule.

4 In June 2020, the Board of Directors approved a change in the Project's In-Service
5 date to August 2020 due to the COVID-19 pandemic. The Project was successfully
6 placed into service on the revised In-Service date.

7 Factors contributing to the change in the schedule included:

- 8 • The need to rework training material in order to support remote training for
9 courses originally planned to be delivered in person; and
- 10 • The additional time required to deliver training remotely which involved
11 delivering a higher number of shorter duration classes.

12 The above noted 11-week extension to the Project schedule resulted in draws on
13 contingency and Project reserve to cover the additional costs associated with the
14 increased use of resources. Refer to sections [4.2](#) and [4.3](#) for further information on
15 the resulting contingency and reserve draws.

16 [Table 9](#) below provides forecast dates on the key milestones for the Project as of
17 September 30, 2020. While the Project was successfully placed into service on
18 August 4, 2020, BC Hydro is currently assessing the need to extend some
19 stabilization activities beyond the November 2020 forecast completion date.

20 Please refer to Appendix C for the latest approved Project schedule.

1

Table 9 Project Milestones

No.	Stage	Planned Date	Actual or Forecast Date (as at March 31, 2020)	Status as of September 30, 2020
1	BC Hydro releases Implementation Phase work to System Integrator and Quality Assurance Advisor	October 2018	October 2018	Complete
2	Implementation - Build Solution	October 2018 to November 2019	October 2018 to July 2020	Complete
3	Target In-Service Date ¹	November 2019	August 2020	Complete
4	Implementation - Stabilization	March 2020 to Mid July 2020	August 2020 to November 2020	The potential extension of stabilization activities is still being assessed.
5	Implementation - Onboarding	March 2020 to March 2021	August 2020 to August 2021	On track
6	Project Completion	March 2021	August 2021	On track

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1 The Committed In-Service date was March 2020 and included a four month schedule contingency to cover changes to the SCA Project within BC Hydro's control. Changes to the SCA Project that impact the project schedule and are outside of BC Hydro's control (i.e., COVID-19 pandemic) were not reflected in this contingency.

BC Hydro Supply Chain Applications Project

Progress Report No. 3

Appendix A

**BC Hydro Supply Chain Application Project:
Go-Live Readiness Report**



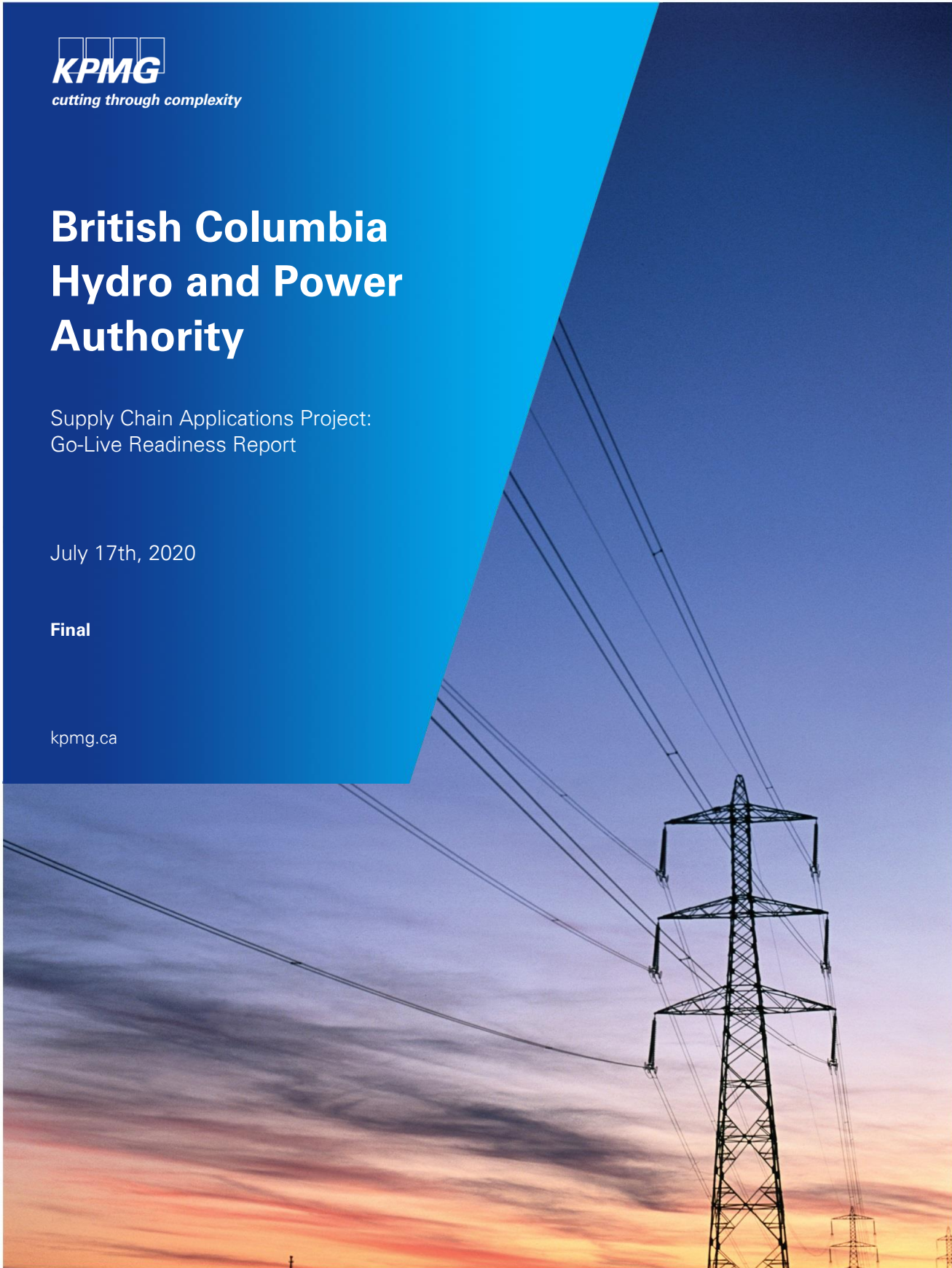
British Columbia Hydro and Power Authority

Supply Chain Applications Project:
Go-Live Readiness Report

July 17th, 2020

Final

kpmg.ca



Limitations and Disclaimers

KPMG LLP (“KPMG”) has drafted this report (the “Draft Report” or “Report”) pursuant to its engagement to assist BC Hydro (“BC Hydro”) in conducting an independent Go-Live Assessment for its Supply Chain Applications Project in accordance with its services contract with BC Hydro.

This report is provided on the basis that it is solely for the information of the management and directors of BC Hydro and that it will not be quoted or referred to, in whole or in part, without prior written consent from KPMG. KPMG does not accept any liability or responsibility to any third party who may use or place reliance on this Report.

This engagement does not constitute an audit or review engagement as those terms are defined in CPA Canada literature applicable to the conduct of formal assurance engagements by Chartered Professional Accountants. The data included in this report has been extracted from information provided to KPMG during discussions with BC Hydro management and employees, and from documents provided to KPMG during their fieldwork, which was completed in October 2018 through July 2020. Information, explanations and representations provided by BC Hydro personnel during the course of this assessment have been considered while preparing this report, but have not been audited or otherwise verified by KPMG.

This Report relies on data and information from these sources and makes no representations with respect to their accuracy or completeness. KPMG has no obligation to update this report or to revise the information contained therein to reflect corrections or changes to information or representations provided to KPMG or other events and transactions occurring subsequent to completion of their fieldwork.

This report is advisory in nature and is intended to provide recommendations for any noted issues that, if appropriately actioned by BC Hydro, may help improve performance and/or prevent or correct weaknesses in the Supply Chain Applications. It is BC Hydro’s obligation to take the actions needed to remedy any identified issues or weaknesses. KPMG is not responsible or liable if loss or misstatement occurs as a result of BC Hydro’s failure to take any required actions.

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Executive Summary

British Columbia Hydro and Power Authority's (BC Hydro) Supply Chain Applications (SCA) Project is a multi-year business and technology initiative to implement SAP for Supply Chain at BC Hydro. KPMG has been retained by BC Hydro to provide independent Quality Assurance (QA) services throughout the project's lifecycle. BC Hydro has recently completed the Realization Phase of the project and is in the process of completing the Final Preparation Phase. The project is expected to go-live on August 4th, 2020 and then transition into Stabilization. This report has assessed the work completed in the Realization and Final Preparation phases and evaluates the Project's overall position to "go-live" with the new solution.

Fieldwork for this 'Go-Live Readiness Report' was performed from October 2018 through July 2020. The scope of this assessment includes observing select Realization Phase workshops, regular interviews with key project personnel and stakeholders, and reviewing SCA Project documentation created to date. In summary, KPMG has observed:

- **Appropriate planning, preparation and validation activities to reduce risk to cutover.** The SCA Project took measures to proactively capture transition requirements and validate the cutover plan.
- **Suitable testing coverage to validate the new solution.** The SCA Project completed multiple rounds of testing to uncover and fix defects.
- **Deliberate engagement with business stakeholders to support business readiness.** The SCA Project consistently engaged stakeholders to communicate change impacts and capture business needs.
- **Proactive consideration for support requirements following go-live.** The SCA Project completed a suitable degree of planning at this stage of the project to prepare for Hypercare and to transition into Sustainment.
- **Effective and timely responses to COVID-19 challenges.** The SCA Project responded appropriately to requirements and restrictions created by COVID-19. The Project has incorporated changes to impacted activities into the project plan.
- **Project management and resourcing challenges.** Through the Realization Phase leading to "go-live", the SCA Project experienced inconsistent project planning and encountered a high degree of turnover for SI resources. This contributed to creating bottlenecks around key resources, extending the time needed for testing, and delays in completing training material and developing reports. The Program managed through these challenges, sometimes needing to change the approach, with the focus always being on delivering the Solution.

Based on this 'Go-Live Readiness Report', KPMG's observation is that the SCA Project is in an adequate position to complete cutover activities and go-live with the system solution. This report outlines several risk areas that could impact cutover or post go-live activities, however KPMG believes that the SCA Project has taken adequate measures to reduce the risk to cutover to a suitable degree in order to transition into the new solution.

KPMG utilized a proprietary Independent Program Assurance (IPA) methodology to complete this review report. The IPA methodology leverages KPMG's Global Enterprise Transformation Tool (GETT). The Realization and Final Preparation phase assessment has applied the scales below to rate each in-scope element.

1. KPMG has applied the following scale to rate the degree to which each dimension has **met assessment expectations** for this phase of the project:

Adequate – SCA Project has followed an appropriate process to address the requirements for this assessment dimension.

Partial – SCA Project has partially met requirements for this assessment dimension. Mitigation measures have been identified to reduce risk.

Inadequate – SCA Project has not met requirements for this assessment dimension, and mitigation measures have not been clearly identified.

2. A **risk impact classification** has been applied to the recommendations in order to highlight the assessed residual risk to the SCA Project if the related issue is not addressed in a timely manner:

High – This issue presents a moderate to high risk to cutover if not adequately addressed in a timely manner.

Moderate – This issue presents a low to moderate risk to cutover if not adequately addressed in a timely manner.

Low – This issue presents a low risk to cutover if not adequately addressed in a timely manner.

The heat map in Figure 1 below illustrates KPMG’s assessment findings against the GETT framework. A further guide to this assessment is provided in the Assessment Methodology section of this report on page 10.

KPMG has tailored the usage of the GETT framework to focus on aspects which are relevant to the Realization and Final Preparation phases of the project. Dimensions that align with project readiness activities or Design Phase activities were previously reviewed as part of the ‘Project Readiness Report’ and ‘Design Review Report’ scope of work and have not been considered for the scope of this phase of assessment. In-scope dimensions for the Realization and Final Preparation phases have been identified below based on findings against the GETT evaluation criteria and are categorized as either “Adequate”, “Partial”, or “Inadequate”. At the end of the Realization and Final Preparation phases, based on KPMG’s review of the SCA Project, no sub-dimension was found to be “Inadequate” based on the GETT evaluation criteria.

Project Delivery				Functional Dimensions		
Project governance	Project management	Change management	Performance management	People	Process	Technology
Strategic alignment	Scope and change control	Change approach and strategy	Business case	Training and development	Target operating model	Enterprise architecture
Leadership	Project plan, deliverables, and resourcing	Case for change	Independent assurance	Skills and competencies	Process design	Data conversion / migration
Delivery principles and policies	Vendor management (SI Selection Process Review)	Change leadership	Incentives to deliver	People strategy and design	Requirements management	Interfaces and legacy systems
Accountability and responsibility	Cost management (financial model)	Change capability	Benefit management	Role design	Data management and Reporting	System design
Structure and capability	Risks, assumptions, issues and dependencies management	Engagement and communication	KPIs / metrics	Organizational design	Business process controls and BCP	System build
Monitoring and controls	Quality standards management	Change impact assessment	Performance improvement	Culture and behaviors	Functional testing	Non-functional testing
Portfolio management	Lifecycle management	Business readiness	High performing culture	People performance management	Security	Transition and support

	Adequate	Project elements are appropriately addressed and meet expectations for current stage of the SCA project
	Partial	Project elements partially address requirements and mitigation actions have been identified
	Inadequate	Project elements are not appropriately addressed and mitigation actions have not been identified
	Not in Scope	Project elements that have been assessed in previous phases, and that are out of scope for this assessment

Figure 1: Overall Realization and Final Preparation phase assessment dimensions

KPMG has summarized the findings for each of the five dimensions below. Recommendations have been suggested for BC Hydro’s consideration.

Project Management

Go-Live Readiness Report Assessment: **Partial**

Findings

At the time of writing this report, KPMG’s review of the Project Management dimension indicates that the sub-dimension **Project Plan, Deliverables and Resourcing** have partially met expectations.

Based on KPMG’s observations, the SCA Project followed an appropriate process to determine the go-live date and allowed for appropriate changes to the project schedule to address issues and reduce risk to cutover.

KPMG has observed that the SCA Project has completed all deliverables critical for go-live, as planned for completion during Realization and Final Preparation. The SCA Project has developed a suitable plan to complete or finish updating the remaining few deliverables after go-live (17 at the time of KPMG’s review). In KPMG’s view, the deliverables deferred to after go-live are not critical inputs for delivering cutover and that delaying completion should not create additional risk for go-live.

The status of the SI Project Manager is currently uncertain. The SI had indicated that his availability might be limited leading up to, during, and following cutover. This risk will likely have a low impact on cutover as KPMG has observed that the SCA Project has been able to operate effectively in the weeks leading up to cutover when the SI Project Manager’s availability has been limited.

The SCA Project has indicated that the BCH Solution Lead and Cutover Lead will be off work due to health reasons and may not be available for cutover. In KPMG’s view the SCA Project has responded appropriately to reduce risk created by this issue. The

Project has responded by making changes to the resource plan under the assumption that this resource will not be available to support activities during cutover.

Departures in two key roles has led the Project to rely more on the Integration Manager and QA Advisor than anticipated. The Integration Manager and QA Advisor has assumed interim responsibility for the Work Management Functional Consultant Lead. This creates potential bottlenecks if activities require action from this team member in multiple capacities. This also creates a greater degree of concentration risk on this team member.

Recommendations

KPMG recommends that the SCA Project not introduce a net new resource unfamiliar with the Project to replace the SI Project Manager at this late stage of the project. KPMG encourages the project to consider working with the SI to delegate authority or promote an existing SI resource to assume this role.

*Risk to cutover: **Low***
Expected completion by: Before go-live

KPMG supports the mitigation measures taken by the project to reduce risk to cutover created by the BC Hydro Solution Lead and Cutover Lead no longer being fully available to support the project, and believes that these measures are appropriate for reducing continuity risk for decision making.

*Risk to cutover: **Moderate***
Expected completion by: N/A

The SCA Project should consider reviewing the cutover plan to identify activities that could have overlapping dependencies or requirements for the Integration Manager and QA Advisor and work with the team member to delegate decision-making to alternates.

*Risk to cutover: **Low***
Expected completion by: Before go-live

KPMG supports the work that is already in progress to identify and assign an appropriate resource from the Operations group to work with the Integration Manager and QA Advisor to complete knowledge transfer for the Work Management Integration solution developed by the SCA Project. KPMG believes that completing this activity will help reduce continuity risk.

*Risk to cutover: **Low***
Expected completion by: After go-live

Change Management

*Go-Live Readiness Report Assessment: **Adequate***

Findings

At the time of the writing of this report, KPMG's review of the Change Management dimension indicates that the sub-dimension **Business Readiness** has met expectations.

KPMG observed that the SCA Project followed an appropriate process to develop business readiness in preparation for cutover. The SCA Project evaluated the degree of impact the project will have on BC Hydro business units. Based on this assessment, the Project completed a number of engagement sessions to communicate impacts the project would have on business activities and to capture input and feedback from stakeholders. Findings captured during engagement sessions have been documented and incorporated into transition plans.

Recommendations

At this time, KPMG has no recommendations for the Change Management dimension.

*Risk Impact Classification: **N/A***
*Expected completion by: **N/A***

People

Go-Live Readiness Report Assessment: *Partial*

Findings

At the time of the writing of this report, KPMG's review of the People dimension indicates that the sub-dimensions **Training and Development** and **Skills and Competencies** have met expectations.

KPMG observed that the SCA Project has followed an appropriate process to capture course content and delivery requirements. Courses have been tailored to take into consideration requirements for delivering instruction virtually. The project has followed a suitable process to select members for the training team and complete onboarding for trainers.

It is anticipated that this will be the largest training program delivered in BC Hydro history. Given the size and scope required for training, and that BC Hydro has historically delivered training for technology projects largely in-person, KPMG believes that there is a potential risk to training efficacy created by delivering training remotely. KPMG believes that the virtual/remote delivery of the training has been given significant attention by the BCH team, and to date has shown to be effective.

Recommendations

KPMG recommends that the SCA Project consider adding capabilities to support developing course content and delivering training post go-live. This could help address the new training requirements identified after go-live and strengthen knowledge retention. KPMG has observed that the SCA Project has taken measures to prepare for this risk. The SCA Project has indicated that funding has been set aside in the project reserve to be directed towards supporting activities in stabilization if required.

While KPMG expects that this risk will have a low degree of impact to cutover, the risk could affect user adoption post go-live.

*Risk to cutover: **Low***

Expected completion by: After go-live

Process

Go-Live Readiness Report Assessment: *Partial*

Findings

At the time of the writing of this report, KPMG's review of the Process dimension indicates that the sub-dimensions **Process Design** and **Security** have met expectations. The sub-dimension **Data Management and Reporting** has partially met expectations due to observations in the Reporting component of this dimension. Findings for the **Functional Testing** sub-dimension is summarized in the Technology dimension below.

KPMG observed that the SCA Project followed an appropriate process to update process documentation based on observations as part of solution development, testing and training activities.

The SCA Project followed an appropriate process to develop security roles, assign roles to end-users, and complete segregations of duties controls testing.

KPMG has observed that the SCA Project completed development and Functional Unit Testing for BW Reports planned for release by go-live. However, as a result of earlier development delays, BW Reports did not undergo Integrated Testing or User Acceptance Testing as had been originally planned at the start of Realization. As a result, KPMG believes that there could be a risk that users encounter more defects than expected once they access BW Reports in production.

Recommendations

KPMG recommends that the SCA Project consider adding capabilities to support BW Report development and testing after go-live. This will allow the SCA Project to respond faster to requirements identified after go-live and more quickly address potential defects uncovered by users as they use the solution.

*Risk to cutover: **Low***

Expected completion by: After go-live

Technology

Go-Live Readiness Report Assessment: *Partial*

Findings

At the time of the writing of this report, KPMG's review of the Process dimension indicates that the sub-dimensions **Transition and Support**; **Data Conversion / Migration Functional Testing**; and **Non-Functional Testing** have met expectations. Assessment for the Transition and Support sub-dimension has focused on 3 areas: Technical Cutover, Hypercare, and Transition to Sustainment.

The sub-dimension **System Build** has partially met expectations.

KPMG observed that the SCA Project followed an appropriate process to complete **testing** for the solution, using an iterative approach. Testing coverage included unit testing, integrated testing, user acceptance testing, and non-functional testing.

The SCA Project followed an appropriate process to prepare for **technical cutover**. The cutover plan has coverage for key activities that need to be completed as part of the technical transition. The Project completed 2 rounds of simulations to validate the appropriateness and accuracy of the cutover plan.

The SCA Project followed an appropriate process to develop the post go-live support model (**Hypercare**). The Hypercare model outlines named team members, roles and responsibilities, and procedures for managing incidents. KPMG observed that the SCA Project has started onboarding for Hypercare team members. The Project has also addressed technology requirements needed to support Hypercare.

The SCA Project followed an appropriate process to develop the **Sustainment transition plan**. KPMG observed that the SCA Project has developed plans to complete knowledge transfer activities. The project has also defined how project artifacts will be integrated into Sustainment and how project activities will be handed off to the Sustainment team.

The SCA Project experienced significant delays while completing data load activities during simulations. KPMG has observed that the SCA Project has taken appropriate measures to investigate and reduce the impact created by this issue. At this time, the project has identified a potential solution and has expanded the cutover window to mitigate any impacts this may have on cutover.

The **System Build** sub-dimension indicates as yellow as the SCA Project is currently experiencing more High severity defects than required to meet the Project's acceptance criteria. While KPMG does not believe that this defect level is significantly out of ordinary for a project of this size and at this stage of its project life, carrying defects through to cutover could impact the ability for users to operate the solution as designed. KPMG has observed that the SCA Project has followed an effective process to evaluate the impact defects could have on the solution, prioritize the treatment for defects, and propose workarounds in the event no technical solution can be found. KPMG encourages the SCA Project to continue to follow the process established by the Project to treat defects and evaluate impact to cutover and go-live.

KPMG supports the approach taken by the project to reduce risk to cutover. KPMG believes that these measures are appropriate to limit the impact remaining defects could have on solution functionality.

Risk to cutover: Moderate
Expected completion by: N/A

Overall Go-Live Readiness Assessment

Based on this 'Go-Live Readiness Report', KPMG's observation is that the SCA Project is in an adequate position to complete cutover activities and go-live with the system solution. This report outlines several risk areas that could impact cutover or post go-live activities, however KPMG believes that the SCA Project has taken adequate measures to reduce the risk to cutover to a suitable degree in order to transition into the new solution.

Scope of Quality Assurance Role and Go-Live Readiness Report

Overview

The role of KPMG as the Quality Assurance service provider has been to provide an independent external assessment of the SCA Project for reporting to the project's Steering Committee as well as BC Hydro's Executive and Board of Directors as required. The primary objective of the QA service provider is to help BC Hydro identify, manage, and mitigate risks associated with the SCA Project.

Fieldwork for this 'Go-Live Readiness Report' was performed from October 2018 through July 2020. The scope of KPMG's field work for this assessment included reviewing specific documentation and analysis completed by BC Hydro to date. Note that the risk profile for this project will change over time and the observations and recommendations herein reflect a point-in-time assessment.

KPMG has maintained independence from project delivery but from time to time, has brought ideas and recommendations to support the success of the overall program.

Throughout the course of this assessment, KPMG attended 21 Steering Committee Meetings, 50 Working Group Meetings, interviewed all Steering Committee members, and conducted regular interviews with the SCA Project Directors, SCA Project Managers and SCA Project Stream Leads along with other subject matter experts and stakeholders as required. Participation in the workshops, meetings and interviews provided a more complete view of Realization activities.

A list of BC Hydro stakeholders interviewed during the Go-Live Readiness Report Assessment is provided in Appendix A. A list of documentation reviewed as part of the Go-Live Readiness Report Assessment is provided in Appendix B.

Project Approach

From October 2018 through July 2020, KPMG conducted the following sequence of activities:



Figure 2: Realization and Final Preparation phase activities

1. **Initiation & Planning:** The first step included a reconnect meeting with the project team following the completion of the Design Phase and the beginning of the Realization Phase. KPMG confirmed with the project team its assessment methodology, the assessment objective, estimated time frame, and established a communication and reporting protocol.

Steps 2-4 took place iteratively and informed monthly Steering Committee updates from October 2018 to July 2020, along with other ad-hoc assessment needs as requested by the SCA Project.

2. **Data Gathering & Analysis:** KPMG identified, collected and reviewed select documents regularly throughout the course of the project. The data and documents gathered and assessed were in the context of reviewing project methodology and not for appropriateness of the solution being developed as it relates to BC Hydro's requirements.
3. **Assessment & Validation:** Following the document review, KPMG identified key observations and risks noted at this stage of the project. KPMG met monthly with stakeholders and the project team members. Follow up interviews took place as required with both BC Hydro and System Integrator stakeholders for validation of the analysis and findings.
4. **Documentation & Reporting:** Based on the work performed in Steps 2 and 3 above, KPMG developed monthly reports for review with the Steering Committee which identified findings, potential risks, and recommendations. These activities have informed this 'Go-Live Readiness Report', which includes information current as of July 2020.

Assessment Methodology

KPMG’s proprietary Independent Program Assurance (IPA) methodology was utilized to complete this ‘Go-Live Readiness Report’. The IPA methodology leverages KPMG’s Global Enterprise Transformation Tool (GETT).

GETT is a flexible diagnostic tool used for supporting transformation programs or projects. GETT takes a holistic approach to project assessment covering key aspects of Project Governance, Project Management, Change Management, Performance Management, People, Process, and Technology. For the purpose of evaluating this phase of the SCA Project, KPMG has tailored use of the GETT tool to focus on Realization and Final Preparation phase review. The GETT tool is split into two main components:

Project Delivery Dimensions: Reviews key aspects of the drivers for project governance and accountability, project management, and change management for a major system implementation and business transformation project; and

Functional Dimensions: Reviews specific documentation, analysis, and plans developed by the SCA Project from a people, process, technology, and data perspective. Functional dimensions cover the processes to transition into the new application along with sustainment requirements in the future state.

Figure 3 below illustrates the scope of the ‘Go-Live Readiness Report’ using the GETT tool.

Project Delivery				Functional Dimensions		
Project governance	Project management	Change management	Performance management	People	Process	Technology
Strategic alignment	Scope and change control	Change approach and strategy	Business case	Training and development	Target operating model	Enterprise architecture
Leadership	Project plan, deliverables, and resourcing	Case for change	Independent assurance	Skills and competencies	Process design	Data conversion / migration
Delivery principles and policies	Vendor management (SI Selection Process Review)	Change leadership	Incentives to deliver	People strategy and design	Requirements management	Interfaces and legacy systems
Accountability and responsibility	Cost management (financial model)	Change capability	Benefit management	Role design	Data management and Reporting	System design
Structure and capability	Risks, assumptions, issues and dependencies management	Engagement and communication	KPIs / metrics	Organizational design	Business process controls and BCP	System build
Monitoring and controls	Quality standards management	Change impact assessment	Performance improvement	Culture and behaviors	Functional testing	Non-functional testing
Portfolio management	Lifecycle management	Business readiness	High performing culture	People performance management	Security	Transition and support

In Scope Project elements that are in scope for go-live readiness assessment
Previously assessed Project element reviewed as part of previous assessment phase
Not in Scope Project elements that are not in scope for this assessment

Figure 3: Realization and Final Preparation phase assessment scope

In Scope – project elements that have been assessed as part of the ‘Go-Live Readiness Report’

Previously assessed – project elements that have been assessed as part of the scope for the Project Readiness Assessment Report or Design Review Report. These dimensions have not been assessed for this phase of the assessment

Not in Scope – project elements which are not a part of the scope of this assessment

KPMG has tailored the use of the above methodology to focus on aspects which are relevant to the Realization and Final Preparation phases of the SCA Project. Dimensions previously assessed for Project Readiness and Design Phase Assessments will not be updated. Within in-scope sub-dimensions, assessment criteria have been tailored to align with expectations for this phase of the project.

Detailed Findings

This part of the report is divided into sections which corresponds to five in-scope dimensions in the GETT framework. Under each sub-section, related GETT sub-dimensions have been grouped together. KPMG has summarized the assessment criteria, project artifacts reviewed, key findings, and recommendations for consideration.

Project Management



Figure 4: Project Management Realization and Final Preparation phase assessment heat map

Project Plan, Deliverables, and Resourcing

KPMG’s review indicates that the SCA Project has partially met assessment criteria requirements for the **Project Plan, Deliverables, and Resourcing** sub-dimension. Turnover for key resources experienced during the course of the Realization and Final Preparation phases of the project have created potential continuity risk for delivering activities related to go-live.

This sub-dimension evaluates the Project’s approach for determining the target go-live date, evaluates the status for deliverables anticipated for completion by go-live, and the appropriateness of resourcing for completing cutover. Detailed evaluation for the project plan, deliverables, and resourcing related to training, business transition, data conversion, cutover, and post-go-live support are covered in each topics’ respective assessment sub-dimension.

Assessment criteria for this sub dimension is summarized below.

Assessment Criteria	Expectations
Go-live date	<ul style="list-style-type: none"> The Project has followed an appropriate process to determine the planned go-live date.
Deliverables	<ul style="list-style-type: none"> Deliverables anticipated for completion during Realization and Final Preparation phase of the project are tracking against schedule.
Resourcing	<ul style="list-style-type: none"> Project team resources are appropriate for delivering cutover and go-live activities.

To assess this dimension, KPMG reviewed the ‘SCA Business Resources’, ‘SCA High Level Schedule – August Go Live’, ‘RD19 Updated Project Implementation Plan (Realization Phase)’, ‘X.01.04 Deliverables and RASCI (Realization)_APPROVED’, ‘Deliverable Acceptance Action List’, weekly project status updates, and iterations of project schedules and resource plans developed throughout the course of Realization and Final Preparation. KPMG also completed interviews with the SI Project Manager, the BCH Project Manager, the Project Directors, Work Stream Leads, Business Solution Leads (BSLs) and Functional Consultant Leads (FCLs).

Go-live date

Based on KPMG's review, the SCA Project followed an appropriate process to respond to issues that had critical path impacts for the project plan. The SCA Project allowed for appropriate changes to the project schedule in order to respond to issues and reduce risk to go-live.

The SCA Project go-live date was revised at several points during the Realization and Final Preparation phases of the project. KPMG observed in each instance that the SCA Project responded appropriately and on a timely basis. The SCA Project investigated the root cause for the issue, undertook a risk-based approach to evaluate the impact to go-live, identified options, and engaged the project Steering Committee in accordance with outlined project governance procedures. Detailed observations and findings relating to each critical path impact and each extension to the go-live date is further outlined in KPMG's monthly 'SCA QA Monthly Project Update' reports.

Based on KPMG's assessment, the SCA Project has allowed for suitable changes to the project schedule to address issues and reduce risk to go-live.

Deliverables

KPMG has observed that the SCA Project has completed all deliverables critical for go-live, as planned for completion during Realization and Final Preparation. The SCA Project has developed a suitable plan to complete or finish updating the remaining few deliverables after go-live (17 at the time of writing this report). In KPMG's view, the deliverables deferred to after go-live are not critical inputs for delivering cutover and that delaying completion should not create additional risk for go-live.

Resourcing

KPMG observed that throughout the Realization and Final Preparation phases of the project, the SCA Project experienced a higher than expected degree of turnover for key project resources, in particular for System Integrator (SI) project roles. In KPMG's assessment, by completing iterative rounds of testing, validation, and engagements sessions with the business, the project has been able to take measures to reduce risk created by interruptions to resource continuity.

Based on KPMG's review, outstanding risks exist in three areas, for the SI Project Manager, for the BC Hydro Solution Lead & Cutover Lead, and for the Integration Manager & QA Advisor.

At the time of writing this report, the status of the SI Project Manager role is uncertain. The SI has indicated that the current SI Project Manager will need to reduce his degree of involvement, although he will continue to be available in a support capacity. To supplement the change, the SI has offered a replacement resource. This risk will likely have a low impact on cutover as KPMG has observed that the SCA Project has been able to operate effectively in the weeks leading up to cutover when the SI Project Manager's availability has been limited. However, reducing the availability of the SI Project Manager at this stage of the project could reduce the responsiveness of the project team when faced with issues during cutover and also weaken capabilities to coordinate activities effectively.

The SCA Project has indicated that the BCH Solution Lead and Cutover Lead will be off work due to health reasons and may not be available for cutover. The Project has responded by making changes to the resource plan under the assumption that he will not be available to support activities during cutover. The BCH Technology Project Manager, with the support of the Data Management Co-Lead and the SI Delivery Lead, has been assigned as his replacement to coordinate planning activities for cutover. The Project Director has been assigned as his replacement as shift captain during cutover. In KPMG's view the SCA Project has responded appropriately to reduce risk created by this issue. As the BCH Solution Lead and Cutover Lead was a key contributor to the design and development of the solution, his absence could create risks for not being able to respond as quickly to issues that may arise during cutover and Stabilization.

Based on KPMG's observation, change-over for both the Work Management SI Functional Consultant Lead and for the BC Hydro Work Management Business Solution Lead has caused the SCA Project to significantly rely on the SI Integration Manager and QA

Advisor to carry over continuity for design requirements and system-build decisions. This creates risks for continuity if this resource is no longer able to support the project.

In addition, this team member would now in practice serve 3 roles on the project - the Integration Manager role, the Work Management Functional Consultant Lead role, and the SI SAP QA Advisor. In KPMG's view this has the potential to create bottlenecks when the project plan has simultaneous decision making requirements for Solution Integration, Work Management Integration, and for Quality Assurance activities.

SI Project Manager

Recommendation: KPMG recommends that the SCA Project not replace the SI Project Manager at this stage of the project. KPMG encourages the project to consider promoting an existing SI Resource, potentially the SI Delivery Lead, to fulfill the requirements of the SI Project Manager role and request that the SI provide this resource with additional support to address the potential increase in workload.

Impact: In KPMG's view, while the SCA Project would still be partially exposed to the risks outlined in this section, replacing the SI Project Manager with a resource already familiar with the solution would offer less risk than introducing a net new resource. An existing resource would bring continuity and familiarity with the solution. Formalizing the role would bring clarity for governance and give additional leadership to the SI team to support better coordination of resources and activities during cutover.

Timing: The project should consider implementing this recommendation as soon as possible.

Integration Manager and QA Advisor – Continuity risk

Recommendation:

KPMG supports the work that is already in progress to identify and assign an appropriate resource from the Operations group to work with the Integration Manager and QA Advisor to complete knowledge transfer for the Work Management Integration solution developed by the SCA Project. KPMG believes that completing this activity will help reduce continuity risk.

Impact: Completing knowledge transfer will reduce reliance on one resource.

Timing: The project should consider implementing this recommendation after go-live.

Integration Manager and QA Advisor – Bottleneck risk

Recommendation: KPMG recommends that the SCA Project evaluate effort loading during cutover for the Integration Manager and QA Advisor. Where possible, KPMG encourages the SCA Project to identify stages during cutover, or activities as part of cutover, that might require this resource to serve in multiple capacities simultaneously. KPMG encourages the project to work with this resource to appoint designates to delegate decision making.

Impact: Proactively identifying and addressing activities during the cutover plan which could constrain the Integration Manager and QA Advisor could reduce the risk for overloading the resource and increase responsiveness for decision making.

Timing: The project should consider implementing this recommendation prior to go-live.

Change Management



Figure 5: Change Management Realization and Final Preparation phase assessment heat map

Business Readiness

KPMG has assessed the **Business Readiness** sub-dimension based on the criteria summarized below.

Assessment Criteria	Expectations
Stakeholder impact assessment	<ul style="list-style-type: none"> The project has followed an appropriate process to identify impacted business stakeholders. The project has evaluated the degree of impact the SCA Project will have for stakeholders.
Transition impacts	<ul style="list-style-type: none"> Business activities impacted by cutover have been identified. Workarounds and mitigation requirements have been identified and captured.
Transition requirements	<ul style="list-style-type: none"> Feedback for cutover requirements from impacted business stakeholders have been captured.
Transition plan	<ul style="list-style-type: none"> Business impacts and requirements have been captured in transition plans.

KPMG’s review indicates that the SCA Project has met assessment criteria requirements for the **Business Readiness** sub-dimension. The SCA Project has followed an appropriate process to identify impacted stakeholders, communicate the impact cutover could have on business activities, create opportunities for business stakeholders to communicate transition requirements, and incorporate feedback into transition plans.

To assess this dimension KPMG reviewed the following documents: ‘BC Hydro Business Transition Plan’, ‘KBU Cutover Dates for TPP’, ‘SCA Business Cutover Tasks’, SCA TPP Progress Tracking’, ‘Transition_StakeholderImpacts’, ‘Transition Point Person – Full Listing’, the Transition Team’s ‘TPP Meeting’ Tracker, and a sample of High Impact KBU Transition Plans. KPMG completed interviews with the Implementation Change Lead, Transition Led, and Change Mgmt. PMO, BCH Change Management Lead, BCH Change Advisors, and BCH Business Solution Leads.

Stakeholder impact assessment

Based on KPMG's observations, the SCA Project has followed a suitable process to identify stakeholders in the business impacted by the SCA Project.

The Transition Lead and Change Management PMO identified impacted stakeholders by working with Change Advisors and Business Solution Leads to review how new processes and technology would affect each BC Hydro Key Business Unit (KBU). Based on this review, the project highlighted impacted KBUs and subsequently evaluated the degree of impact for each KBU. Each KBU was appointed a Transition Point Person (TPP) to lead transition planning activities and serve as a liaison between KBUs and the SCA Project team. The Transition Lead and Change Management PMO then worked with the TPPs and other members of the business to validate, cross-reference and update impact considerations. KPMG observed that at different points during Realization, the SCA Project reviewed the degree of impact the Project is expected to have on each KBU based on developments in the Project.

At the time of writing this report, 43 KBUs were identified as being impacted. 12 KBUs were identified as being impacted to a high degree, 4 KBUs were identified as being impacted to a medium degree, and 27 KBUs were identified as being impacted to a low degree.

Transition impacts

Based on KPMG's review, the SCA Project followed a suitable approach to identify and capture business impacts created by cutover activities. KPMG observed that the SCA Project engaged stakeholders to communicate activities and dates that would be impacted by cutover. The SCA Project also allowed time in the project schedule for business stakeholders to appropriately review impact areas and identify workaround and mitigation requirements.

On March 13th, the Transition Lead shared with TPPs a document that outlined dates and events leading up to and during cutover that could impact business activities. This document was developed based on a target May 18th go-live date. The Transition Lead and the Change Management PMO indicated to KPMG during interviews that TPPs worked with business stakeholders to understand cutover events and document business impacts, workarounds, and mitigation requirements.

COVID-19 created additional requirements and consideration for cutover. KPMG observed that the Transition Lead, Change Management PMO, and Imp. Change Lead worked with the Project Managers, SI Delivery Lead, Business Solution Leads and SI Functional Consultant Leads to update the transition impacts in response to new requirements. On June 5th, the SCA Project formalized and communicated the new go-live date to the TPPs. The Transition Lead and Change Management Lead shared the updated 'KBU Cutover Dates for TPP' document with TPPs. The document outlines approximately 40 business activities that would be impacted as a result of pre-cutover and cutover events. TPPs have updated transition activities developed in response to the March 13th communication with consideration for new requirements and incorporated changes into their respective transition plans.

Transition requirements

Based on review of the 'TPP Meetings' tracker and from interviews with the Transition Lead and Change Management Imp. Lead, KPMG observed that the Project followed an adequate process to capture requirements from the business for the Project in order to support cutover. KPMG observed that four channels were used to engage the business and capture transition requirements:

1. KBU meetings: Project team members (BSLs, CAs and the Transition Team) directly engaged with TPP and business stakeholders to communicate KBU specific impacts, and capture requirements from the business to SCA Project.
2. Cross-KBU meetings: Independently, and with support from SCA Project team members, TPPs facilitated sessions between KBUs to compare transition plans and identify inter-KBU dependencies.
3. Internal KBU meetings: TPPs held meetings with other members within their respective KBUs to assess impacts, discuss challenges and plan transition activities.
4. Project communications: The SCA Project communicated business impacts through updates on BC Hydro's internal site and through email. As part of these communications, contacts to members of the project team were provided to give opportunity for stakeholders to submit follow-up questions and communicate requirements from the business.

In KPMG's view, these channels were appropriate for providing opportunities to the business to surface cutover requirements.

KPMG also observed that the SCA Project completed an adequate number of engagement sessions. The 'TPP Meetings' tracker indicates the Transition Lead, Change Management PMO, and the Imp. Change Lead, with support from Change Advisors and TPPs, conducted approximately 340 engagement sessions with business stakeholders between August 2019 and May 2020. Approximately 160 meetings took place with High impact KBUs (on average 13 meetings per KBU); 34 meetings took place with Medium impact KBUs (9 meetings per KBU); and 150 meetings took place with Low impact KBUs (6 meetings per KBU). The Transition Team has communicated that engagement has also taken place through emails, phone calls and other ad-hoc communication channels.

Transition Planning

Based on KPMG's assessment, the SCA Project has followed an adequate process to incorporate feedback and input from business stakeholders into transition plans. The Transition Team has indicated that all 43 transition plans have been reviewed and approved.

Based on reviewing a sample of 6 TPP 'Transition Plans', KPMG observed that transition plans provide sections to capture activities that will need to take place both prior to go-live and following go-live. Activities are grouped into 5 categories: Business Readiness, Data & Contract Conversion, Technology Cutover, People & Training, and Vendor/Supplier/Contractor Relations.

KPMG observed evidence that the SCA Project has captured pre-go live activities based on assessed business impacts and cutover requirements captured by the Transition Team.

KPMG observed that post go-live activities are still in the process of being identified. The Transition Lead has indicated that post go-live activities will be developed in parallel with the development of the post go-live adoption and benefits realization plans. At the time of writing this report, KPMG has observed that placeholders have been included in transition plans to capture post go-live activities, and that the SCA Project has engaged both business and project stakeholders to plan for activities that would need to be completed following go-live.

People

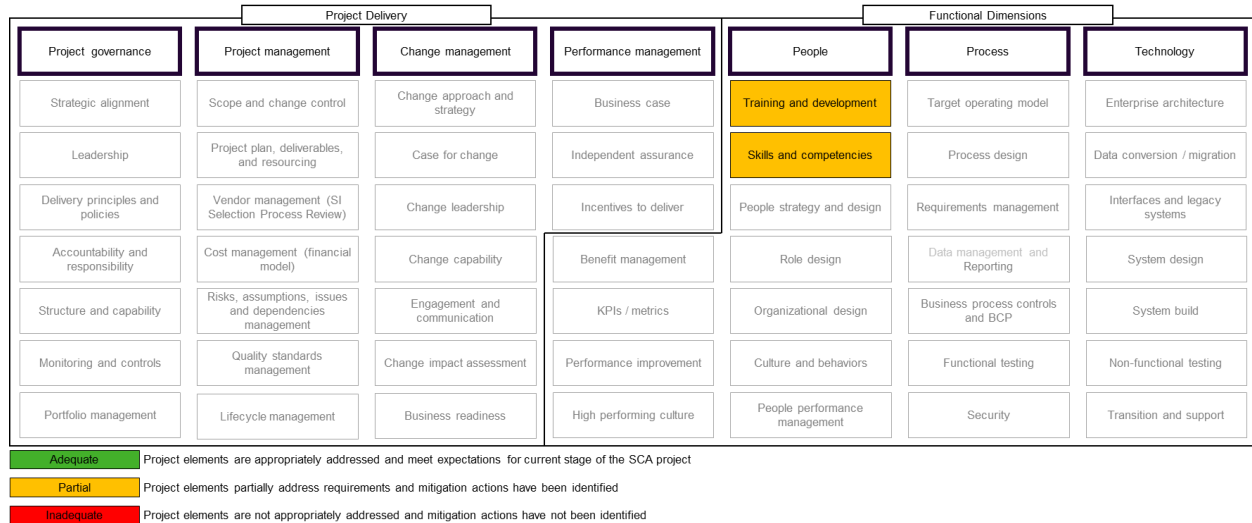


Figure 6: People Realization and Final Preparation phase assessment heat map

Training and Development

KPMG has assessed the **Training and Development** and **Skills and Competencies** sub-dimensions together based on the criteria summarized below.

Assessment Criteria	Expectations
Course development	<ul style="list-style-type: none"> The project has captured course content requirements based on the developed state solution. The project has captured delivery requirements based on training method and participant needs. The project has followed an appropriate process to translate training requirements into courses.
Training delivery	<ul style="list-style-type: none"> The project has followed an appropriate process to assign users to courses. The project has followed a suitable approach to select and onboard trainers. The project has addressed technology requirements for training. The project has followed an appropriate process to sequence and schedule courses.
Tracking training impact	<ul style="list-style-type: none"> The project has developed a suitable approach to track training delivery and impact.

KPMG’s review indicates that the SCA Project has partially met the assessment criteria for the **Training and Development** and **Skills and Competencies** sub-dimensions. COVID-19 has introduced new constraints that will require training to be delivered remotely. KPMG has observed that the SCA Project has responded appropriately to challenges created by COVID-19. However as this training program is anticipated to be the largest in BC Hydro history and also the first to be delivered remotely at this scale, KPMG believes that conducting training virtually could impact effectiveness.

To assess this dimension, KPMG reviewed the following documents: 'SCA_Training_Region_Requirements', 'SCA_S05_Training_Env_Plan', 'ProcesstoCourseMapping_WM', 'SCA_MMQ_CourseMapping', 'SCA_Training_Course_Outlines', and 'SCA WebEx Training Framework', 'SCA_TTT_Tracker' document, and a sample of 3 SCA Training Courses. KPMG also completed interviews with the following team members: Training Lead, Change Management Lead, Training Logistics Coordinator, Instruction Designers, Change Advisors, BSLs, and Functional Consultant Leads.

Course development

Based on KPMG’s review, the SCA Project has met assessment criteria for course development. The SCA Project followed an appropriate process to capture and translate requirements into course content.

KPMG assessed this dimension based on the:

- Process the SCA Project took to capture course content requirements
- Process the SCA Project took to capture training delivery requirements
- Process the SCA Project took to translate training requirements into course material
- Completion status for course material

The SCA Project followed an appropriate process to capture course content requirements based on end user needs and degree of change the solution is anticipated to have on the role of the end user. The Imp. Change Lead and Training Lead indicated during interviews that the training team worked collaboratively with the Business Solution Leads, Functional Consultant Leads, and Change Advisors to identify training requirements by user group. Requirements were captured by identifying changes to business processes and system functionality. This analysis was completed in June 2018 and captured in ‘2.06.01 Training Needs Analysis’. Subsequently, throughout the course of Realization, the training team validated the appropriateness of training material coverage by cross-referencing courses with L3 process maps as outlined in the ‘ProcesstoCourseMapping’ documents.

The SCA Project followed an appropriate process to capture training delivery requirements. Based on reviewing the ‘SCA_Training_Course_Outlines’ and ‘RD06 EU Training – Course Outline and Role Deliverable’ documents, and on interviews with the Business Solution Lead, Functional Consultant Leads, and members of the training team, KPMG observed that the Instructional Designer worked closely with functional work streams to gather input on course delivery needs by course and stakeholder group. The SCA Project captured delivery requirements in course outlines, which summarize course objectives, audience, course duration, method of delivery, job-aids, and required exercises.

In KPMG’s view, the approach taken by the SCA Project for course development was sound. Instructional Designers worked closely with Business Solution Leads, Change Advisors, and Functional Consultants to translate training requirements into Lesson Plans. Instructional Designers then developed courses based on the Lesson Plans. Courses were developed iteratively and incorporated new information as the solution evolved. The Imp. Change Lead and Training Lead indicated during interviews that findings from Business Advisory Review (BAR) Sessions (x3), Change Canvas Sessions (x~20), various test cycles, and Train-the-Trainer sessions were incorporated into course material. KPMG also observed that the SCA Project followed an appropriate process to modify courses in response to remote training requirements (e.g. growing the number of job-aids and exercises included in courses).

KPMG observed that Instructional Designer capabilities were inconsistent and at times did not meet project requirements. This resulted in delays for developing training material, which have been outlined in KPMG’s Monthly Steering Committee Updates.

Training delivery

KPMG assessed this dimension based on the process the SCA Project took to:

- Identify training need and assign courses to end users
- Identify and onboard training delivery resources
- Address technology requirements for training delivery
- Schedule courses for end users

Assigning course to users

Based on KPMG’s assessment, the SCA Project followed an appropriate process to assign courses to end users based on need.

KPMG observed that the SCA Project followed an iterative process to match users to courses. This process began during the Design Phase of the project and extended through to Realization. During interviews, the Training Lead indicated that the SCA Project identified approximately 4,000 end users that will need to receive training based on changes introduced by the SCA project. The training team mapped users to courses by reviewing:

- Historic user access in PassPort
- Feedback from Business Solution Leads

- Feedback and nominations from business managers for their teams
- Input from end users self-identifying training needs

End users were then assigned to instructor-led training or self-directed web-based training based on the following criteria:

- Volume of transactions
- Degree of complexity introduced by changes for business processes or system functionality
- Degree of impact changes will have on the role of the end user
- Adult learning requirements

KPMG reviewed the 'Training Schedule' and 'Virtual Training Schedule Documents' created for each work stream. KPMG observed that the SCA Project mapped end users to "Training Groups" and mapped "Training Groups" to courses. At the time of writing this report, the Training Lead has indicated that the SCA Project has assigned approximately 1,000 users to instructor-led training and approximately 3,000 end users to web-based training.

Identifying and onboarding trainers

Based on reviewing the 'Master_TrainingStakeholderList', 'SCA_Training_Delivery_Plan' and through interviews with the BC Hydro Training Lead, KPMG observed that the SCA Project followed an appropriate process to identify and select training resources. The training delivery team consists of trainers, subject matter experts, Super Users, and technical support resources. Candidates were identified based on nomination by the Business Solution Lead, nomination by business managers, and based on self-identified responses. Trainers were then selected on the basis of familiarity with SAP, seniority and experience at BC Hydro, and degree of engagement with the SCA Project.

KPMG observed that the SCA Project followed an appropriate process to onboard and prepare trainers through Train the Trainer (TTT) sessions. Based on reviewing the 'SCA_TTT_Tracker' and interviews with the Change Implementation Lead and the Training Lead, KPMG observed that BSLs and project team members delivered training to trainers related to process changes and system functionality; the BC Hydro Training Lead delivered training relating to adult learning practices. KPMG observed that the SCA Project responded appropriately to feedback from trainers. To accommodate requirements for remote training delivery and based on feedback from trainers, the SCA Project adjusted training responsibilities in the MMQ and PROJ work streams.

- MMQ: SMEs (consisting of project team members) will deliver the majority of training, supported by trainers and super users.
- PROJ: The BSL and SME will deliver the majority of training, supported by trainers and Super Users.

Based on reviewing the 'SCA_TTT_Tracker' document, as of July 15th, the SCA Project has completed onboarding for 117 out of 119 trainers.

Preparing technology

Based on KPMG's assessment, SCA Project followed a suitable process to address technology requirements for training. KPMG assessed this dimension by reviewing the system environment management approach, data staging activities, and the availability of tools to support remote training delivery.

The SCA Project has followed an appropriate process to capture and address system environment requirements for training. The 'SCA_Training_Region_Requirements' and 'SCA_S05_Training_Env_Plan', outline application and interface requirements; high level data staging and refresh requirements; and security and access requirements by user. The CM Lead has indicated that two environments have been made available for end user training. One environment has been dedicated to training delivery. Access has also been provided to the sandbox environment to support training activities. The sandbox environment will be shared with other work streams on the project. The sandbox environment will serve as a backup in cases where data sets in the primary training environment are insufficient for all trainees to complete exercises. Trainees will also have access to the sandbox environment to explore system functionality.

The SCA Project has followed an appropriate process to stage data to support delivering courses and completing exercises. The Training Lead indicated that training related data requirements have been captured and updated iteratively by Instructional Designers, Business Solution Leads and project team members. KPMG observed that the SCA Project has captured detailed data requirements by exercise in 'CO18 - RD09e End User Training Materials - Data Requirements' and course specific 'Data Sheets'. The SCA Project has tracked data creation activities by work stream in 'Training Data Creation Trackers'.

COVID-19 created requirements that training be delivered remotely. Based on review of the 'SCA WebEx Training Framework' and interviews with the Imp. Change. Lead and Training Lead, KPMG observed that the SCA Project followed an appropriate process to capture technology requirements to support virtual instruction. The training and change management teams developed a checklist for end user and trainer requirements and then worked with SCA Project team members and business stakeholders to provide appropriate access to technology. Remote training will be delivered via WebEx. KPMG observed that Instructional Designers, in collaboration with BSLs and trainers modified courses to be consistent with limitations and requirements created by WebEx. From May 4th to May 15th, the SCA Project also completed a pilot training session for Field Store Keepers in advance of broader training delivery activities to test the adjusted training approach and capture lessons learned.

Scheduling courses

KPMG assessed this dimension based on the training delivery schedule, and with consideration for additional risks introduced by remote training requirements.

Based on reviewing the 'SCA_Training_Delivery_Plan', individual work stream 'Training Schedule' documents and interviews with the Training Lead, KPMG observed that the SCA Project has followed an appropriate process to schedule training delivery. The Training Lead and Imp. Change Lead indicated to KPMG during interviews that the training schedule was developed with consideration for business needs after go-live, course development delays, and remote training requirements. The SCA Project has staggered training into two phases. Priority 1 training will be provided to users with job requirements needing to use the new solution immediately following go-live. Priority 1 training began on June 8th 2020 and is expected to continue until July 31st, 2020. Priority 2 training will be provided to users with job requirements that do not need the new solution immediately at go-live. Priority 2 training is anticipated to begin on August 24th 2020 and continue until December 1st 2020. Approximately 60% of instructor led training will be delivered as part of Priority 1 training; the remaining 40% will be delivered as part of Priority 2.

The 'SCA_Training_Delivery Plan', indicates that training for BW Reports will take place after go-live, between September 8th, 2020 and October 30th, 2020. KPMG has observed that the Project has not yet scheduled BW reporting courses and have not yet selected trainers or change management resources to support delivery. While KPMG believes that it is appropriate for the SCA Project to complete planning for BW training at a later date, KPMG encourages the Project to determine the dates for when individual courses will be delivered. Scheduling courses individually can also help inform for when Instructional Designers will need to complete developing course material. KPMG also encourages the project to select resources to deliver training for these courses so that their availability can be protected.

KPMG is concerned that delivering training remotely at this scale could introduce additional risk to knowledge retention and solution adoption. The 'SCA_Training_Region_Requirements' document indicates that training for the SCA Project is anticipated to be the largest program undertaken by BC Hydro. The training program covers a large user base and is highly complex. Delivering training at this scale in a virtual format is also new to BC Hydro. While in KPMG's view, the project has followed a suitable approach to prepare for virtual instruction, the size and complexity of this program introduces outstanding risks. Remote training could weaken training efficacy and require the project to offer repeat training sessions to reinforce instruction. New use cases and unexpected interactions between the system and processes could create need for additional course content not anticipated in the original training scope. KPMG believes that the SCA Project will need to respond quickly and appropriately to reinforce training and address any unexpected gaps.

Remote training

Recommendation: The SCA Project has indicated that additional funding has been set aside in the project reserve to be directed towards supporting activities in stabilization if required.

KPMG supports the actions taken by the project to prepare for this risk. KPMG recommends that the SCA Project consider adding capabilities to support developing course content and delivering training for after go-live. This could help address new requirements identified after go-live and strengthen knowledge retention.

Impact: Adding reserve capacity to training will allow the SCA Project to respond more quickly and comprehensively to potential gaps in training material. This could complement the existing planned Hypercare model and reduce reliance on resources such as BSLs and Functional Consultants whose availability could be constrained by other challenges.

Timing: The project should consider implementing this recommendation after go-live.

Training Impact

Based on KPMG’s observations, the training team has developed an adequate plan to track progress for delivering End User Training and capture feedback from training participants.

The SCA Project has developed an appropriate approach to monitor participation for both web-based and instructor-led training:

- Self-directed training: QLMS will be used to track completion status for web-based self-directed training.
- Instructor-led training: WebEx attendance reports will be used to track participation for instructor led training.

The SCA Project has developed an appropriate approach to evaluate training efficacy and capture feedback from training participants.

- Emails: Training participants are encouraged to provide feedback to the training team via emails. Emails will be logged in SharePoint for members of the training team.
- Training parking lots: Each work stream has developed a process for capturing parking lot items and participant feedback during course delivery. Parking lots will help inform the training team where follow-up is required and if there are potential gaps in course content.
- Online surveys: Upon completing courses, the SCA Project has asked participants to complete the ‘SCA Training: End User Training’ survey. The survey is intended to capture feedback from participants for training preparation activities, course instructor, technology, and overall learning and training effectiveness.

At the time of writing this report, based on reviewing the ‘WeeklyTrainingMetrics_20200703’ document, the Training Lead has indicated that training delivery is tracking well against schedule. Users have completed 3,053 self-directed training courses and participated in 739 instructor-led training modules.

Process

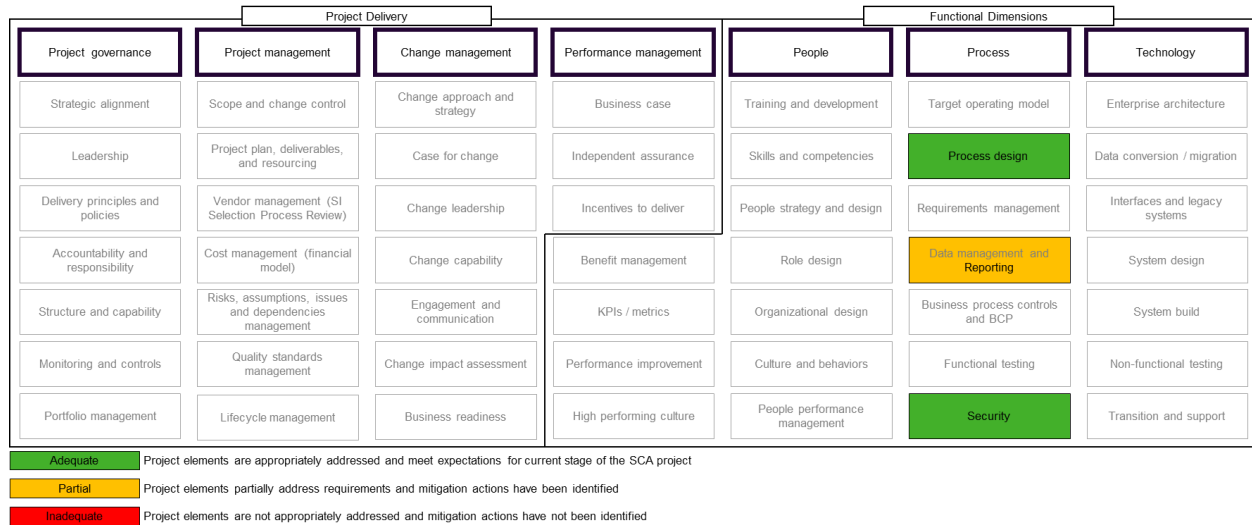


Figure 7: Process Realization and Final Preparation phase assessment heat map

Security

KPMG has assessed the **Security** sub-dimension based on the criteria summarized below.

Readiness Assessment Criteria	Expectations
System roles	<ul style="list-style-type: none"> The project has followed a suitable process to create security roles based on process and system design.
Role assignment	<ul style="list-style-type: none"> The project has followed a suitable process to assign security roles to end users based on access requirements.
Segregation of duties	<ul style="list-style-type: none"> The project has followed a suitable process to identify and resolve role conflicts and segregation of duty issues.

KPMG’s review indicates that the SCA Project has met the assessment criteria for the **Security** sub-dimension. The SCA Project has followed an appropriate process to create system roles based on future state processes and system functionality; to assign roles to end users based on access requirements; and to identify potential role conflicts and segregation of duty issues.

To assess this dimension, KPMG reviewed the following documents: ‘SCA Security GRC Work V6-NOV 5’, ‘IMP Phase Cyber Security Assessment Final’, ‘RM3 Consolidated Security Spreadsheet’, ‘GRC Review of SCA Roles and Users v7 final’, and a sample of ‘S1’, ‘S2’, and ‘S3’ documents. KPMG completed interviews with the following team members: Technology Security Consultant, BCH Training Lead, BCH Training Logistics Coordinator, BCH Solution Lead, SI Functional Consultants, BCH Finance Professional, Internal Controls & Policy, and BCH Business Solution Leads.

System roles

Based on interviews with the Technology Security Consultant, SI Functional Consultants and Business Solution leads, and based on reviewing the ‘S1’ and ‘S2’ documents at different points in the project, KPMG observed that the SCA Project followed an adequate process to capture access requirements, create new system roles and update existing system roles. The Technology Security Consultant captured role requirements by reviewing security profiles and transaction history in Passport as well as future state access requirements based on activities documented in L3 process maps. Requirements were then mapped to SAP roles. The Technology Security Consultant also captured feedback provided by from the Business Stream Leads, SI Functional Consultants, and members of the business. KPMG observed that the SCA Project validated role setup as part of security testing during ITC 2.

Details for each future state role are described and captured under a unique 'S1' and 'S2' document; the Project created 49 'S1' and 'S2' documents for new system roles created by the SCA Project; the Project has updated 38 'S1' and 'S2' documents for roles that currently exist and require adjustments to security setup.

Based on KPMG's observations, the 'S1' document describes functional requirements for the role. The document captures role descriptions, business controls, transaction access, menu structure, and the testing approach.

Based on KPMG's observations, the 'S2' document describes technical requirements for the role. The document captures transaction access, menu structure, testing approach, treatment for sub-roles, integration requirements, HR requirements, and reporting requirements.

Role assignment

Based on KPMG's assessment, the SCA Project followed an adequate process to assign system roles to end users.

KPMG reviewed the 'SCA S3 Role Mapping' document. This document maps security roles developed or updated for the SCA Project to BC Hydro employees and to contractors that have access requirements. To develop this mapping, the BCH Training Lead indicated that the training team reviewed system roles captured in the 'S1' and 'S2' documents against job titles captured in 'L3 Process Maps'. Job titles were then matched to end users.

To validate role mapping, the BCH Training Lead and BCH Training Logistics Coordinator reviewed the role mapping with BSLs and the BC Hydro Solution Lead. The BCH Training Lead indicated that trainees will use their production system roles in the training environment for end user training. While this is not intended to be a test for the suitability of security profiles, this does in KPMG's view, create additional opportunities to identify any remaining access defects.

Segregation of duties

Based on KPMG's observations, the SCA Project has followed an adequate process to identify Segregation of Duties (SoD) issues and role conflicts. For this assessment, KPMG evaluated the process BC Hydro took to identify security control gaps. KPMG did not perform independent testing for the appropriateness of controls.

SoD and role conflict assessments were completed by members of the training team, the Solution Lead, and BCH Internal Controls & Policy resources. KPMG observed that the SCA Project has taken measures in 3 areas to support security controls testing:

- GRC compliance testing: The BCH Finance Professional, Internal Controls & Policy indicated that BC Hydro used SAP GRC Access Control to identify transaction conflicts within roles. In accordance with BC Hydro IT and security standards, the SCA Project has completed 3 rounds of GRC testing.
- Manual verification: The Training Logistics Coordinator and BCH Finance Professional, Internal Controls & Policy independently reviewed role assignments for potential segregation of duties issues. To reduce the likelihood that end users are assigned roles with conflicting access privileges, they reviewed the 'SCA S3 Role Mapping' against the segregation of duties restrictions captured in related 'S1' documents.
- Compliance reporting: The BCH Finance Professional, Internal Controls & Policy indicated that reporting requirements to flag security control violations have been provided to the SCA Project Reporting team. The BCH Finance Professional, Internal Controls & Policy indicated that standard reports generated from ECC should be able to satisfy security control compliance reporting requirements.

KPMG reviewed the 'GRC Review of SCA Roles and Users v7 final' document for outstanding SoD issues. The GRC test results highlighted roles that had controls violations or role conflicts. The BCH Finance Professional, Internal Controls & Policy indicated to KPMG during interviews that these risks have been communicated to the SCA Project and the project is in the process of working on action items to address outstanding issues. 'GRC Review of SCA Roles and Users v7 final' indicates that no outstanding issues would need to be urgently addressed prior to go-live.

Process Design

KPMG has assessed the **Process Design** sub-dimension based on the criteria summarized below.

Assessment Criteria	Expectations
Process Design Documents	<ul style="list-style-type: none"> The project has an appropriate process to update process documentation to reflect the as-built solution.

KPMG’s review indicates that the SCA Project has met assessment criteria for the **Process** sub-dimension. The SCA Project has followed an appropriate process to update process documentation to reflect changes identified as part of testing, training and system build activities.

To assess this dimension, KPMG reviewed the following documents: ‘3.04.02 Updated Process Tracker_ Realization’, ‘RD47 Process Design Documents’, and ‘RM7 RD47 Process Design Documents’. KPMG also completed interviews with Business Solution Leads and Functional Consultant Leads for Materials Management and Quality, Projects Integration, Purchasing and Contracts, and Work Management Integration streams.

Process Design Documents

KPMG observed that the SCA Project followed a suitable process to update Process Design Documents (PDDs). KPMG evaluated this dimension based on the activities the SCA Project took to update process documentation based on changes identified as part of testing, training and system build activities. KPMG did not assess the completeness of Process Design Document (PDD) or validate their appropriateness in relation to supporting the future state solution.

KPMG reviewed a sample of defects logged in HPALM, a sample of ‘L3 Process diagrams’, and completed discussions with the Training Lead, the BCH UAT Test lead and Business Solution Leads. KPMG observed that the SCA Project captured defects with process change requirements during ITC 1, ITC 2 and UAT. The Business Solution Leads have indicated that these defects were assigned to SI Business Analysts, who then completed updates for process diagrams. The SCA Project completed a major review of PDDs and updated documents based developments in the solution. KPMG observed that the updates to PDDs were signed off by BSLs and the Technology PM on April 15th 2020, and were captured in the ‘RD47 Process Design Document’ deliverable.

While the PDDs for the Work Management Integration stream has been signed off, the BSL has indicated that PDDs have been developed to reflect the end-state work management solution, which is intended to be realized approximately 3 years after go-live. Some PDDs for this work stream therefore do not reflect the interim-state solution. Interim processes have been defined and integrated into training materials. While KPMG does not believe this will create a significant risk to go-live, BC Hydro will have limited ability to rely on Work Management process maps until the end state is realized. If work management processes impacted by the SCA Project are a dependency or input to other projects, this could create inconsistencies or add to effort needed to reconcile interim and future state processes.

End State Work Management Integration PPDs

Recommendation: KPMG recommends that the SCA Project consider updating PDDs to reflect the interim state for the work management integration activities.

Impact: Needing to reference training material and process maps separately to reconcile interim and future state processes could create misunderstandings or add effort needed for users to understand how the SCA Project intends work management activities to take place. When taken in context that the former BCH Business Solution Lead and that the former SI Functional Consultant for Work Management transitioned off the project, documenting interim work management processes could also reduce continuity risk. This will allow the Hypercare and Sustainment teams to more quickly narrow in on process or system functionality issues when addressing challenges or user concerns without relying as significantly.

Timing: The project should consider implementing this recommendation after go-live.

Reporting

KPMG has assessed the **Reporting** sub-dimension based on the criteria summarized below.

Assessment Criteria	Expectations
Report development	<ul style="list-style-type: none"> • The project has followed an appropriate process to develop and test reporting so that it meets business requirements identified during Design phase. • The project has updated documentation so that reports are accessible by end users.

KPMG’s review indicates the SCA Project has partially met assessment criteria for the **Reporting** sub-dimension. Based on KPMG’s assessment, the SCA Project will not complete the full scope of development and testing for Business Warehouse reports originally anticipated for this stage of the project by go-live. Completion for functional specifications and technical specifications documents are also expected to be delayed.

To assess this dimension KPMG reviewed the following documents: ‘BW Reporting – Plan’, ‘BW Developing – Gaps’, ‘BW reports – documentation tracking’, ‘CO-18 RD17f RTM Reporting – BW’, ‘Report Development Tracker’, ‘Reporting Go-Live Requirements’, ‘RTM for Reporting – BCH and Leads Solution’, ‘REPT Go-Live RTM Status’, ‘RD-31 SCA Report Catalogue V1.1’, and ‘RD-32 BW Data Dictionary’. KPMG completed interviews with the following team members: Reporting Operations Lead, Reporting Consulting Lead, Business Warehouse Lead, Reporting Developer, Testing Lead, Training Lead, Solution Lead, Technology PM, SI PM, Business Lead, BSLs, and Functional Consulting Leads.

Report development

KPMG has observed that the SCA Project has completed development and Functional Unit Testing for BW Reports planned to be released by go-live. However due to delays experienced with developing BW Report, the SCA Project was not able to test BW Reports as part of ITC1, ITC2, or UAT. The delays also caused the SCA Project to prioritize developing BW Reports for before and after go-live based on urgency. KPMG is concerned that as BW reports did not undergo integrated testing or user acceptance testing, users will experience a greater than expected number of defects in production. KPMG does not believe this will create significant risk to cutover, but could negatively impact the user experience after go-live and impact activities that depend on BW Reporting.

Report development

Recommendation: KPMG recommends that the SCA Project consider increasing capacity for developing and testing BW Reports following go-live.

Implications: Increasing capacity for report development will allow the SCA Project to respond more quickly to new requirements if they emerge after go-live. Increasing the Project’s responsiveness to user requirements for reporting could reduce the degree of change experienced by users when transitioning into a new system and improve overall adoption.

Timeline: The SCA Project should consider implementing this recommendation after go-live.

Technology



Figure 8: Technology Realization and Final Preparation phase assessment heat map

Transition and Support

KPMG’s assessment indicates that the SCA Project has met the assessment criteria for the **Transition and Support** sub-dimension. Review for this sub-dimension is divided into three sections - Technical Cutover, Hypercare, and Sustainment.

Technical Cutover

KPMG has assessed **Technical Cutover** based on the criteria summarized below.

Assessment Criteria	Expectations
Cutover plan	<ul style="list-style-type: none"> The project has followed a suitable process to identify, sequence, and plan for cutover activities. The project has followed a suitable process to validate the appropriateness of cutover activities.
Governance	<ul style="list-style-type: none"> The project has developed a governance approach to coordinate cutover activities.

KPMG’s review indicates that the SCA Project has met assessment criteria for Technical Cutover. The SCA Project has identified cutover activities appropriately, completed two rounds of validation for cutover, and developed a suitable governance model to manage technical transition activities.

KPMG has reviewed the following documents: ‘UAT_SCA_Cutover_Plan_Master’, ‘DR1_SCA_Cutover_Plan_Master’, ‘UAT Cut over Issues’, ‘DR2_SCA_Cutover_Plan_Master’, ‘YT-00486_DR2_Planning’, ‘Cutover Issue Tracker’, ‘DR1 Lessons Learned’, ‘SCA Transport Sequence – Final’, ‘RD48 - Production Cutover Plan (Deliverable Acceptance)’, ‘SCA_Cutover_Plan_Master’, ‘YT-00486-HL_PROD_Cutover_Plan’, ‘SCA Cutover Go-No Go Criteria’, ‘RD43 – Background Jobs Schedule’, ‘Data_Validation_Plan’, ‘SCA Business Team – Cutover and Hypercare access’, ‘3.05.02 RP4 Printer Connectivity to SAP - Infrastructure Design Document’, ‘2.17.01 RICEFWU Tracker_Realization’, and ‘DR2 SCA Contact list-Captains-Status’.

KPMG has conducted interviews with the following team members: The SI PM, Technology PM, Solution Lead, Delivery Lead, Business Lead, BSLs, FCLs, Data Management Lead and Co-Lead, Testing Leads, the Imp. Change Lead, Transition Lead, and Change Management PMO.

Cutover Plan

KPMG completed a high level review of several iterations of the cutover plan. Based on reviewing ‘UAT_SCA_Cutover_Plan_Master’, ‘DR1_SCA_Cutover_Plan_Master’, ‘UAT Cut over Issues’, ‘DR1 Lessons Learned’, ‘DR2_SCA_Cutover_Plan_Master’, and ‘SCA_Cutover_Plan_Master’ documents, KPMG observed that the SCA Project has adequate coverage for key activities expected for technical cutover. The table below outlines findings against expectations for the SCA cutover plan.

Expected Cutover Activity	Assessment Status	Findings
Backups	Met	Based on KPMG’s observations, the Project has identified when SAP system backups and snapshots will be taken as part of cutover. The Solution Lead has indicated that snapshots of Passport, Pre-production, and Production environments will be captured during cutover for backup and rollback purposes.
Configuration	Met	Based on KPMG’s review, the cutover plan outlines when transports will be completed for system configuration and when manual configuration activities will be completed.
RICEFWU objects	Met	Based on KPMG’s review, the cutover plan and ‘SCA Transport Sequence – Final’ document outline when the SCA Project will complete transports for RICEFWU objects.
Validation	Met	At the time of writing this report, the BCH Solution Lead, SI Integration Manager and BSLs have indicated that the SCA Project is still in the process of identifying and documenting smoke test activities. They have indicated that this activity is expected to be completed before cutover. The Solution Lead is working closely with Business Solution Leads and Functional Consulting Leads to identify and structure smoke tests based on previous Dry Run results and production cutover requirements. The Solution Lead has indicated that smoke tests will help inform the SCA Project’s go-live decision criteria.
Batch jobs	Met	Based on KPMG’s review, the SCA Project has captured batch job creation and validation activities in the cutover plan. Activities are documented in greater detail in the ‘RD43 – Background Jobs Schedule’ deliverable (the SCA Batch Job Tracker).
Decommissioning activities	Met	Based on KPMG’s review, the SCA Project has captured activities to decommission legacy application in the cutover plan (e.g. Passport objects, legacy interfaces). The ‘2.17.01 RICEFWU Tracker_Realization’ also outlines objects that will need to be retired as part of the SCA Project.
Data conversion and validation	Met	Based on KPMG’s review, the SCA Project has captured cutover activities for data cleansing and preparation; data extraction and loading; and data validation in the cutover plan. The plan also captures when manual conversion activities will take place. Data validation activities are captured at a high level in the cutover plan. Validation activities are outlined in greater detail in the ‘Data_Validation_Plan’ deliverable, owned by the Project Data Specialist and approved by BSLs and FCLs.

Expected Cutover Activity	Assessment Status	Findings
		KPMG’s assessment for data validation activities is covered in more detail in the “Data Conversion & Migration” section of this report on page 40.
Hardware activation	Met	The Solution Lead has indicated that the SCA Project has captured hardware installation activities at a high level in the cutover plan (e.g. for mobile devices, printers, scanners). Detailed activities for some peicies hardware have been captured in related documents (e.g. ‘3.05.02 RP4 Printer Connectivity to SAP - Infrastructure Design Document’)

KPMG has observed that the Project has followed a suitable approach to validate the appropriateness and accuracy of the sequence and timing of cutover activities. The SCA Project has documented how long each activity would require based on actual observations captured during dry runs. KPMG observed that the SCA Project completed three simulations to validate activity sequence and duration:

- UAT mock cutover during UAT (February 17th – March 21st): documented in ‘UAT_SCA_Cutover_Plan_Master’
- Dry Run 1 from April 27th – May 5th: documented in ‘DR1_SCA_Cutover_Plan_Master’
- Dry Run 2 from June 21st – June 24th: documented in ‘DR2_SCA_Cutover_Plan_Master’

Based on KPMG’s observations, the simulations have provided the Project with suitable opportunity to test and validate cutover activities. KPMG has observed that the SCA Project updated subsequent iterations of the cutover plan based on lessons learned during the simulations. Takeaways have been captured in several documents (HPALM, ‘UAT Cut over Issues’, ‘DR1 Lessons Learned’, and ‘Cutover Issue Tracker’).

Cutover Governance

Based on reviewing the four technical cutover plans developed for UAT mock, DR1 and DR2 simulations, and SCA cutover; and the cutover kick off documents (‘SCA-X05 UAT - Cut over kick off meeting’, ‘SCA-DR1-ALL kick off meeting’, ‘SCA X05 – DR2 Captains meeting’), KPMG observed that the SCA Project has developed a cutover governance model that contains the key components expected by KPMG.

KPMG evaluated cutover planning for inclusion of the following:

Governance Component	Status	Findings
Resource plan	Met	<p>Based on KPMG’s observations, the Project has followed an appropriate process to develop the cutover resource plan. ‘DR2 SCA Contact list-Captains-Status’ outlines assignments for cutover roles (e.g. cutover manager, primary and secondary shift captains, core support leads, and cutover activity leads) and also captures resource contact information.</p> <p>The ‘SCA-DR1-ALL kick off meeting’ and ‘SCA X05 – DR2 Captains meeting’ documents outline roles and responsibilities for captains and task owners.</p> <p>Security access for cutover resources have been captured in the ‘X05 Cutover Users’, and ‘SCA Business Team – Cutover and Hypercare access’ documents.</p> <p>KPMG observed that the SCA Project has not identified backup resources for all team members involved in cutover. While not critical to cutover, KPMG believes that assigning a delegate could strengthen decision making and support contingency planning.</p>
Shift management	Met	<p>Based on KPMG’s observations, the Project has developed a suitable cutover shift management framework. The ‘SCA X05 – DR2 Captains meeting’ document indicates that the Project plans to implement shifts for captains and core support resources to provide 24/7 coverage for key cutover activities.</p>

Governance Component	Status	Findings
		<p>Eight shift captains have been identified to lead cutover activities: the Solution Lead, Delivery Lead, Technology PM, Technical Team Lead, IT PM, Data Management Co-Lead, Project Controls and Coordinator, and the PMO Project Manager.</p> <p>Based on KPMG’s observations, two cutover captains will be assigned to each shift, along with shift assistants to support cutover execution, progress tracking and reporting activities.</p> <p>KPMG has observed that six out of the eight shift captains are BC Hydro team members. KPMG is concerned that BC Hydro is absorbing a greater degree of risk from the SI than anticipated by being more directly involved with leading cutover activities. KPMG encourages the SCA Project to review the SI Statement of Work to ensure that BC Hydro is appropriately protected should issues be created by decisions made by BC Hydro resources during cutover.</p>
Communication procedures	Met	<p>Based on KPMG’s observations, the SCA Project has developed a suitable process to track execution for cutover activities. Shift captains and cutover leads will communicate using emails to initiate activities; activity owners will respond to these emails to report completion status, duration, and other additional information as required (e.g. observations, issues, etc.).</p> <p>KPMG has observed that the detailed process is captured in the ‘SCA-DR1_All kickoff meeting’ and ‘SCA_X05 DR2 Captains meeting’ documents.</p>
Status reporting	Met	<p>Based on KPMG’s assessment of the cutover simulations, the SCA Project has developed a suitable approach to support status reporting. Cutover communication and reporting details are outlined in the ‘SCA X05 – DR2 Captains meeting’ document.</p> <p>During cutover, the SCA Project will provide morning and afternoon status updates on a daily basis. The updates will be shared with the broader cutover team and will outline progress against cutover milestones, summarize issues and provide comments. The Cutover Manager has indicated that daily status updates and shift captain hand-off meetings will also take place. The template for these reports is captured in the ‘DR2 SCA Contact list-Captains-Status’ document.</p> <p>For general cutover communications, the ‘SCA X05 – DR2 Captains meeting’ document indicates that during cutover, a WebEx session will be open to discuss and resolve DR2 issues as they are raised. The Technology PM has also indicated that a conference bridge will be open 24/7 for general discussion purposes.</p>
Defect management	Met	<p>Based on KPMG’s observations, the Project has developed a suitable approach to capture, assess, escalate, resolve and log cutover defects.</p> <p>Defects encountered during cutover will be triaged and prioritized based on impact to go-live. The Offshore Development Coordinator will be the first point of contact for defects. He will assign defects to development resources or escalate as required. The Offshore Development Coordinator has indicated that two daily meetings will held to review outstanding defects.</p> <p>The Technology Team Lead and Development Lead have indicated that cutover defects will be logged in HPALM and the ‘Cutover Issue Tracker’. The Technology Team Lead has indicated that development shift leads have been identified, and development resources will be available throughout cutover.</p>
Environment management	Met	<p>The Technology Team has indicated that the SCA Project will follow BC Hydro Sustainment environment management procedures during cutover. All onsite users will have access to DEV, QA, Pre-PROD, and PROD Firefighter. Detailed access by resource is tracked in the ‘X05 Cutover Users’ document.</p>

Governance Component	Status	Findings
		The Project has also identified at what point non-BC Hydro resources will be restricted from accessing the Production environment. The Technical Team Lead has indicated that onsite SI resources will lose access to the production environment following go-live.
Decision gates	Met	<p>KPMG evaluated this dimension based on the process the SCA Project took to determine the go / no-go criteria, the decision point during cutover for go-live, and delegation of authority to approve go-live.</p> <p>KPMG observed that during cutover simulations, the SCA Project followed the criteria outlined in the 'SCA Cutover Go-No Go Criteria' document. The BC Hydro Project Manager has indicated that the project is in the process of updating this criteria based on input from the BC Hydro technology team.</p> <p>The SCA Project has outlined a suitable approach for delegating authority to approve the go-live decision. The Project has proposed to Steering Committee that members delegate a decision maker to approve the go / no-go decision during cutover. In KPMG's view this is a sensible approach.</p>
Contingency planning	Met	The 'DR2_SCA_Cutover_Plan_Master' and 'DR2 SCA Contact list-Captains-Status' indicate that rollback checkpoints have been included in the cutover plan. The BCH Solution Lead indicated the SCA Project will not test rollback procedures. The BC Hydro Technology Sustainment function has developed established procedures and the SCA Project will follow those procedures in the event that the Project needs to execute a rollback.

Hypercare Support Model

KPMG has assessed the Hypercare Support Model based on the criteria summarized below.

Assessment Criteria	Expectations
Hypercare Support Model	<ul style="list-style-type: none"> The Project has followed an appropriate process to develop the Hypercare Support Model.
Resource plan	<ul style="list-style-type: none"> The Project has followed an appropriate process to assign roles and responsibilities for Hypercare resources. The Project has follow an appropriate process to prepare and onboard Hypercare resources.
Technology plan	<ul style="list-style-type: none"> The Project has followed an appropriate process to address technology requirements for Hypercare.

KPMG's review indicates that the SCA Project has met assessment criteria for Hypercare Support Model. The SCA Project has developed a Hypercare model with adequate coverage for key components needed to support the organization after go-live; the SCA Project has developed a resource plan to staff the Hypercare organization and initiated onboarding for Hypercare resources; and the SCA Project has developed a suitable technology plan to address technology requirements for Hypercare.

Hypercare Support Model

KPMG has reviewed the following documents: 'YT-00486_Post_Go_Live_Support_Model', 'SC Sust RACI', 'SCA Transition Sustainment', 'BAS_SCA', 'Hypercare_Resource_and_Contact', 'Knowledge Transfer Plan', and 'Knowledge Transfer Approach'. KPMG has interviewed the following project resources: Sustainment Lead, IT PM, Technology PM, Solution Lead, BSLs and FCLs.

KPMG observed that the SCA Project has developed a Hypercare model with adequate coverage for key components needed to support the organization after go-live. The table below outlines findings against expectations for the Hypercare Support Model.

Component	Status	Findings
Scope and schedule	Met	Based on KPMG’s observations, the SCA Project has followed a suitable process to determine the support period provided by the Hypercare organization. Hypercare will take place for approximately three months following go-live and then transition into Sustainment.
Roles and responsibilities	Met	‘YT-00486_Post_Go_Live_Support_Model’ outline roles and responsibilities for Hypercare resources. During interviews, the SI Delivery Lead and SI Offshore Development Coordinator indicated that SI resources have been identified to support Hypercare activities. SI resources will support Hypercare activities as well as complete tasks carried over from the Final Preparation Phase of the project.
Incident management workflow	Met	Based on KPMG’s review, the SCA Project has followed an appropriate process to develop incident management procedures. ‘YT-00486_Post_Go_Live_Support_Model’ outlines procedures for identifying, triaging, escalating, solving, validating, closing, and reporting on issues and defects. The SCA Project indicated that a separate workflow has been developed to address security issues and that security incidents will be prioritized during the first two weeks of Hypercare to expedite resolution. This is consistent with KPMG’s expectations.
Technology requirements	Met	The SCA Project has identified ServiceNow as the incident and knowledge base management tool. HPALM will continue to be used for defect management. Procedures for capturing incidents and defects are outlined in the ‘YT-00586-Post_GoLive_Support_Model’ document.
Vendor support	Met	The ‘Supplier Hypercare Model’ document indicates that resources will be made available to support vendors after go-live. The document outlines reference material and user guides available to suppliers online, as well as provides key contacts for vendors by activity.
Security	Met	Based on KPMG’s observations, ‘SCA Business Team – Cutover and Hypercare access’ and ‘SCA S3 Role Mapping’ capture security roles and access requirements for both BC Hydro and SI Hypercare resources.
Cutover to Hypercare transition	Met	KPMG reviewed the SCA Project’s procedure for capturing, communicating, and handing-off issues and defects that emerged during cutover to the Hypercare team. The BC Hydro Technology Project Manager has indicated that the cutover team will produce daily cutover reports and a final cutover summary document that will be shared with the Hypercare Leads during transition. Based on KPMG’s observations, there will be

Component	Status	Findings
		sufficient continuity between cutover and Hypercare as many project resources will continue to serve in Hypercare.
Hypercare to Sustainment transition	Met	<p>KPMG assessed this dimension based on two focus areas: the transfer of responsibilities between the SI Project Team and BC Hydro Sustainment Team, and the transfer of responsibilities between the BC Hydro Project Team and BC Hydro Sustainment Team.</p> <p>'YT-00586-Post_GoLive_Support_Model' and 'Knowledge Transfer Plan' documents outline high level project plans for the Hypercare team to complete knowledge transfer activities and hand-off responsibilities to the Sustainment team.</p> <p>The BCH Technology Project Manager and Business Lead have indicated that transition activities between the SI and Sustainment team, and between the BCH Project Team and Sustainment team will take place as part of knowledge-transfer. Activities will include job-shadowing, formal knowledge transfer sessions, and onboarding activity in preparation for Hypercare. It is anticipated that knowledge-transfer will take place over the course of three months of Hypercare after go-live.</p>

Resource model

Based on KPMG’s observations, the SCA Project has followed an appropriate process to develop the resource model for Hypercare. KPMG assessed this dimension based on whether the Hypercare team had appropriate coverage for the capabilities required to operate the support organization; and based on activities taken by the project to train and onboard Hypercare resources.

Based on reviewing the 'Hypercare_Resource_and_Contact' document and through discussions with the BC Hydro Technology PM, KPMG observed that the SCA Project has selected resources to provide coverage for the following functions: System Configuration, Technology Development, Security Access, Report Development, Data Management, Processes Updates, Training Updates and Delivery, and Communication & Engagement for Hypercare.

KPMG observed that resources have been organized into 3 groups. Each group will have distinct responsibilities for addressing issues that emerge during Hypercare. 'YT-00586-Post_GoLive_Support_Model' outlines how each group will interact to address issues.

- Tier 1: Will serve as the first points of contact for end users. Tier 1 support resources have responsibility for reviewing and addressing issues locally and for raising incidents through defined escalation channels.
- Tier 2: Will be responsible for triaging incidents, solving lower complexity incidents, creating knowledge base entries for solutions, and raising incidents to Tier 3 support as needed.
- Tier 3: Will be responsible for addressing complex functional and technical issues and logging defects in HPALM.

Based on KPMG’s observations, the project followed an appropriate process for assigning resources to each tier:

- Tier 1: The SCA Project has assigned Super Users to serve in Tier 1 capacity. Super Users are members of the business and therefore will likely be familiar to the requestor and the business background. The majority have appropriate capabilities, developed through Train the Trainer sessions and prior involvement with the SCA Project. It is anticipated that Super Users will be able to address questions about process and system functionality.
- Tier 2: The SCA Project has assigned functional BCH Project team resources and members of the Business Applications Support (BAS) team to serve in Tier 2 capacity. BAS resources are familiar with BC Hydro’s technology and defect management process; Project resources have deep familiarity with the business solution for the SCA Project.
- Tier 3: The SCA Project has assigned technical SI Project team resources and members of the Application Technical Support (ATS) team to serve in Tier 3 capacity. ATS team members have appropriate technical capabilities and are familiar with BC Hydro’s system landscape; Project resources have familiarity with both the technology and business solution for the SCA Project.

Based on KPMG’s observations, the Project has followed an appropriate process for preparing and onboarding the Hypercare team.

- Tier 1: The Imp. Change Management Lead and Change Management PMO delivered onboarding for Super Users virtually from June 17th to June 25th. The Change Management Imp. Lead has indicated that additional ad-hoc onboarding sessions will also take place leading up to go-live. Based on KPMG’s observations, in many cases, Super Users have also received technical onboarding from Train the Trainer sessions.
- Tier 2: The Business Lead has indicated that onboarding for the BAS team will take place both during knowledge-transfer sessions.
- Tier 3: The Business Lead and Solution Lead have indicated that onboarding ATS team will take place during knowledge-transfer sessions.

In the case of SCA Project team resources taking on Tier 2 or Tier 3 responsibilities for Hypercare, onboarding requirements will likely be limited as in many cases team members will already have a significant degree of familiarity with the solution.

At the time of writing this report, the following Hypercare support resource have been identified an onboarded by the Project, as captured in the ‘Hyper_Resource_and_Contact’, and ‘Super User Analysis’ documents

Tier	Number of resources
Tier 1 (Super Users)	233
Tier 2 (Project team and BAS Resources)	26
Tier 3 (SI and ATS Resources)	39
Hypercare Management Team	21

Technology readiness

KPMG observed that the SCA Project has followed an adequate process to address key technology requirements for Hypercare. The table below outlines findings against expectations for the Hypercare organization.

Requirement	Status	Findings
Environment management	Met	The Technical Team Lead has indicated that after go-live, the SCA Project team will be provided access to BC Hydro’s Sustainment environments to reproduce, analyze and address defects. The Project team will follow standard BC Hydro Sustainment Technology Procedures when interacting with the different project landscapes. Dev, QA, and Pre-Prod environments will be available to the Project team.
Role access	Met	The SCA Project has documented access requirements for Hypercare team members in the ‘Hypercare_Resource_and_Contact’ for ServiceNow, and ‘SCA Business Team – Cutover and Hypercare access’ and ‘SCA S3 Role Mapping’ for SAP. The BC Hydro Technology PM as indicated that only BC Hydro resources will have access to production environments during Hypercare; SI resources will not have access to the Production environment following go-live.
Incident management	Met	The SCA Project has indicated that ServiceNow will be used as the Incident Management tool during Hypercare, The ‘YT-00586-Post_GoLive_Support_Model’ outlines incident management procedures.
Knowledge management	Met	The SCA Project has indicated that ServiceNow will be used as the Knowledge Management tool during Hypercare. The ‘YT-00586-Post_GoLive_Support_Model’ outlines knowledge management guidelines and procedures. In June 2020, the BC Hydro Technology PM indicated that the Project had begun populating the tool with known issues and defects in preparation for Hypercare.

Requirement	Status	Findings
Communication channels	Met	The BC Hydro Technology PM has indicated that phone lines and dedicated email mailboxes have been setup for receiving incidents. At the time of writing this report, the SCA Project has set up “Avaya SoftPhone” to route incident request phone calls directly to Tier 2 support resource laptops.

Sustainment

KPMG has assessed **Sustainment** based on the criteria summarized below.

Assessment Criteria	Expectations
Knowledge transfer	<ul style="list-style-type: none"> The project has followed an appropriate process to develop a suitable knowledge transfer plan. Plan outlines process to capture knowledge transfer requirements complete knowledge transfer between SI and Sustainment resources, and between BCH project resources and Sustainment resources.
Transition	<ul style="list-style-type: none"> Sustainment function roles and responsibilities have been identified. Roles and responsibilities have been assigned to named resources. The Project has followed an appropriate process to develop a plan for integrating project deliverables into the sustainment function.

KPMG’s review indicates that the SCA Project has met the assessment criteria for Sustainment. The SCA Project has followed an appropriate process to develop the knowledge transfer plan and has initiated knowledge transfer activities. The SCA Project has also developed an appropriate plan to transition project activities to the Sustainment organization.

To complete this assessment, KPMG reviewed the following documents: ‘Knowledge Transfer Approach’, ‘Knowledge Transfer Plan’, ‘Supply Chain Sustainment team onboard’, ‘Sustainment Lead profile’, ‘SC Sust RACI’, and ‘SOW_3_for_SCA_Project_V0.7.3 – Deliverables’. KPMG completed interviews with the Business Lead (also the Sustainment Lead), Solution Lead, Technology PM, IT PM, SI PM, Delivery Lead, Technology Lead, Data Management Leads, BSLs and Functional Consultant Leads.

Knowledge transfer

KPMG observed that the SCA Project has followed an appropriate process to develop the knowledge transfer approach between the SCA Project team and the BC Hydro Sustainment organization. The ‘Knowledge Transfer Approach’ document outlines guiding principles, knowledge transfer activities, intended recipients, expected outcomes, types of knowledge to be transferred along with related deliverables, and success measures. The ‘Knowledge Transfer Plan’ outlines by knowledge type, planned knowledge transfer activities, intended recipients, timing relative to go-live date, and assigned responsibilities (SI or BC Hydro).

KPMG observed that the SCA Project has organized Sustainment resources into three “Knowledge Transfer Groups” and outlined how knowledge transfer activities will be delivered for each group:

Knowledge Transfer Group	Sustainment Resources	KT Lead	KT Methods
Technical resources	Business Application Service Resources Application Technical Support Resources	SI Project Resources	Job shadowing, formal SI led knowledge transfer sessions
Functional resources	PURC SME (Sr, Procurement Advisor) PROJ SME (Supply Chain Contract Mgr.) MMQ SME (BS Field Stores)	BCH Project Resources & Sustainment Lead	Job shadowing, formal onboarding sessions for Sustainment roles and responsibilities

Knowledge Transfer Group	Sustainment Resources	KT Lead	KT Methods
Super Users	A subset of Hypercare Super Users will be onboarded as Sustainment Super Users	BCH and SI Project Resources	Job shadowing, knowledge transfer onboarding to be completed during Super User Hypercare onboarding. Additional Sustainment onboarding will be provided for select Super Users

At the time of writing this report, KPMG has observed that the SCA Project has initiated formal knowledge transfer sessions for all “Knowledge Transfer Groups”. Technical resources have completed 4 formal knowledge transfer sessions; Functional resources have completed 2 onboarding sessions; and Super User underwent onboarding as part of Train the Trainer sessions and as part of Hypercare preparations on June 22nd. The Sustainment Lead has also indicated that it is expected that the Functional resource group will be made up primarily of team members from the SCA Project, and therefore the degree of knowledge transfer required is anticipated to be relatively low.

Transition

Based on reviewing the ‘SC Sust RACI’ and through discussions with the BCH Business Lead, KPMG has observed that the SCA Project has developed a suitable plan to transition and integrate project activities and deliverables into the Sustainment organization.

KPMG has evaluated the SCA Project for coverage against the following transition areas. The sustainment roles assigned by the SCA Project for each transition area is summarized below:

Transition Areas	Documents	Sustainment Roles and Responsibilities
Business processes	PDD, PFD, P+F Matrices	Business Process Owners will be responsible for updating and maintaining process documents. Process documents will be integrated with BC Hydro’s global process documentation repository, which is owned by the IT Projects Team.
System configuration	MDRS, EKC	The Technology Sustainment Team (ERP/ATS Team) will be responsible for maintaining technical MDRS and EKC documents. Documents will be stored in the ‘Solution Manager’ system.
Technical development	RICEFWU Functional and Technical Specifications	The Technology Sustainment Team (ERP/ATS Team) will be responsible for maintaining Functional and Technical Specification documents. Documents will be stored in the ‘Solution Manager’ system.
Training	Lesson Plans, Course Content, Job Aids, Exercises	The Sustainment Team will be responsible for maintaining training material, and completing Train the Trainer activities. Super Users will be responsible for updating materials and delivering training. Training materials will be stored on the Sustainment Supply Chain SharePoint. The SCA Project received approval to make training material available through EnableNow and are in the process of setting up the system for use.
Security	S1, S2, S3 documents	The Sustainment Lead has indicated that security access and security documents will managed by the Technology Security Team, supported by the Sustainment Team.

Transition Areas	Documents	Sustainment Roles and Responsibilities
Reporting	Functional and Technical Specifications, Reporting Flow Diagrams, Reporting catalog SAP Data Dictionary	The Sustainment Lead has indicated that Sustainment Team, Reporting Team, and BCH Supply Chain Reporting Teams will jointly manage SCA reports in Sustainment. BW reports, the Data Dictionary and Reporting Catalog will be accessible through the BW Portal.
Data Management	Data Governance Strategy, Data Conversion Specs, Data Object Tracker	<p>The 'Supply Chain Master Data Governance' Document captures master data management procedures. Tiers of resources have been assigned Sustainment responsibilities for master data management.</p> <p>Several SCA Project team resources will transition into sustainment roles supporting MDM activities, including the SCA Project Data Management Lead who will serve as Chief Steward. Several members of Working Group are anticipated to serve on the Data Governance Committee.</p> <p>Data Conversion Specs will be maintained by the Technology Sustainment Team. Documents will be stored in the 'Solution Manager' system.</p>

Data Conversion and Migration

KPMG has assessed the **Data Conversion and Migration** dimension based on the criteria summarized below.

Assessment Criteria	Expectations
Data preparation	<ul style="list-style-type: none"> The project has followed an appropriate process to prepare, cleanse and enrich data in advance of cutover. Data conversion specifications have been developed and kept updated.
Data conversion	<ul style="list-style-type: none"> The project has followed an appropriate process to plan for cutover activities for data which include data extraction, transformation, loading, and validation. The project has validated coverage, sequence, and duration for cutover activities relating to data.
Data governance	<ul style="list-style-type: none"> The project has developed a suitable data governance model to support data management activities following go-live.

KPMG’s review indicates that the SCA Project has met the assessment criteria for the **Data Conversion and Migration** sub-dimension. The SCA Project has followed an appropriate process to prepare data and to plan for data conversion.. Also based on issues observe during data load simulations, the SCA Project has identified that data conversion activities are taking significantly longer than anticipated.

As part of its assessment, KPMG did not complete an independent review of data quality or evaluate whether data records are able to adequately meet solution requirements.

To assess this dimension, KPMG reviewed the ‘Contract Conversion Issue List’, ‘Data Action Log’, ‘Data Object Tracker’, ‘Data Prep List’, ‘Data Schedule’, ‘247_Data_Validation_Meetings’, ‘Data Objects Conversion Dashboard’, ‘Data_Not_Migrating_to_SAP’, ‘Data_Validation_Plan’, ‘SCA Contract Conversion Schedule’, ‘SCA_Data_Migration_Strategy_and_Approach_APPROVED’, and ‘SCA Data Conversion Steps’ documents. KPMG also completed interviews with the Data Management Lead and Co-Lead, Delivery Lead, Data Specialist, Technical PM, SI PM, Solution Lead, Integration Manager & QA Advisor, Technical Team Lead, BSLs and Functional Consulting Leads.

Data preparation

Based on the confirmation provided by the Data Leads, KPMG has observed that the SCA Project has completed a suitable degree of data preparation in anticipation for go-live. The Data Leads indicated that the Data Work Stream used the ‘Data Mapping Files’ to keep track of data preparation progress made during the course of the Realization and Final Preparation phases. The Data Leads shared that BSLs and FCLs have validated that the anticipated scope for data preparation is complete by providing sign-off in the ‘Data Validation Plan’.

KPMG has observed that the Data team has followed an appropriate process to develop and update Data documents and deliverables. The Data work stream captured for each data object, by field, transformation rules and requirements from source to target system in the ‘Conversion Functional Specification’ (CFS). This document was previously referenced as the ‘Target Data Requirements’ document. At the time of writing this report, KPMG observed that the Data team has created or updated 31 CFS documents. The BC Hydro Data Lead has confirmed that all CFS documents have been updated to reflect conversion requirements. At the time of writing this report, the project plan indicates that the ‘Target Data Requirements’ is expected to be completed after go-live.

Data conversion

Based on KPMG’s observations, the SCA Project has followed an appropriate process to plan data conversion activities for cutover. KPMG assessed this dimension based on the activities completed by the SCA Project to test and validate data conversion activities prior to go-live. KPMG reviewed the conversion plan captured in the ‘3.06.00 Data Schedule’, ‘UAT_SCA_Cutover_Plan_Master’, ‘DR1_SCA_Cutover_Plan_Master’, ‘DR2_SCA_Cutover_Plan_Master’ and ‘SCA_Cutover_Plan_Master’ documents, and completed interviews with the Data Leads, Business Solution Leads, and Functional Consultant Leads.

KPMG observed that the Data team completed 6 data conversion simulations during the Realization and Final Preparation phases. Three data conversion exercises involved partial data sets and three involved full data sets. The three initial partial simulations were completed as part of ITC 1, ITC 2 and UAT. The SCA Project completed 2 full simulations as part of cutover Dry Runs 1 and 2, as well as a separate additional simulation. KPMG observed that the Data team used the mock loads to validate the appropriateness, sequence and duration of data conversion activities. The Data team captured defects in HPALM. The Data Team has indicated that lessons learned have also been captured in HPALM, as well as in the 'DR1 Lessons Learned' document.

Based on KPMG's review, the SCA Project followed an appropriate process to respond to defects and issued identified during mock loads. During Dry Run 1, data validation and data load activities took significantly longer than anticipated. The SCA Project also experienced a greater than expected number of data conversion defects. KPMG observed that the data team responded by:

- shifting, where appropriate, data conversion and validation activities to take place in advance of cutover weekend;
- working with other project team members to define in greater detail and align on data validation activities that will need to take place. 'DR2_Data_Validation_Plan' outlines validation activities and assigned roles in detail;
- developing a set of data conversion procedures as captured 'SCA Data Conversion Steps' document for data objects; and
- completing an additional data load and validation exercise between June 8th and June 12th prior to DR 2 to surface other potential issues and confirm whether mitigation measures have sufficiently addressed issues uncovered in DR 1.

KPMG observed that while the mitigation measures addressed a number of issues identified during the Dry Run 1, the SCA Project continued to encounter issues for Dry Run 2. The 'DR2 SCA Contact-list-Captains-Status' status reports indicate that the SCA Project continued to experience longer than expected delays when loading certain data objects.

At the time of writing this report, KPMG has observed that the SCA Project has taken measures to reduce risk created by data load delays. The SCA Project has identified several root causes for the slowdown and has proposed solutions to improve performance. The SCA Project has also worked with impacted stakeholders to extend the outage window so that the cutover schedule will allow for more contingency. In KPMG's view, the SCA Project has followed an appropriate process to reduce the risk created by issues identified in Dry Run 2.

The SCA Project has indicated that in the event there is an unanticipated delay for data conversion, data load activities for those objects may take place after go-live. KPMG observed that the SCA Project has captured these data objects in cutover plans. KPMG observed that the SCA Project has allocated resources to support these activities.

Data governance model

KPMG observed that the SCA Project has followed an appropriate process to develop governance processes for master data after go-live. The 'Supply Chain Master Data Governance Strategy' covers procedures for creating data records, updating data records, audit processes; governance levels, assigned roles and responsibilities. The governance model was developed primarily by the Data Management Lead and Business Lead. The deliverable was formally submitted to the Working Group for approval on June 17th, 2020.

System Build

KPMG has assessed the **System Build** sub-dimension based on the criteria summarized below.

Assessment Criteria	Expectations
Custom development	<ul style="list-style-type: none"> • The project has followed an appropriate process to complete development for in scope RICEFWU objects. • Development has taken appropriate consideration for change requests. • Development specifications have been created and kept updated.

KPMG’s review indicates that the SCA Project has partially met assessment criteria for the **System Build** sub-dimension. At the time of writing this report, development objects have a greater number of defects than required to meet the Project’s acceptance criteria.

To complete this assessment, KPMG reviewed the ‘Change Request Log’, ‘SCA_BRMS’, ‘2.17.01 RICEFWU Tracker_Realization’, ‘Testing completion measures and standards’, and ‘Table K - List of RD17d BRM’ documents, and a sample of Functional and Technical Specifications. KPMG interviewed the Technical Team Lead, SI Development Lead, and PMO on a regular basis to capture additional findings. KPMG did not independently test RICEFWU objects to verify whether they had been developed to meet solution requirements. KPMG also did not review documentation to verify that they sufficiently reflected technical development.

Custom development

KPMG has observed that the SCA Project has developed an appropriate plan to complete development for in-scope RICEFWU objects identified at the start of Realization and added through change requests. The SCA Project has prioritized technical development based on urgency. The ‘SCA_BRMS’ tracker and ‘Change Request Log’ outline whether development objects will need to be completed before or after go-live. The SI Offshore Development Coordinator has indicated that the SCA Project will finish development for objects required by go-live listed in the ‘SCA_BRMS’ tracker before cutover. The ‘BCH_Weekly Status Report_20200713’ shows that there will be several CRs that will not be completed by go-live. Based on reviewing the Change Request Log and through discussions with the SI Offshore Development Coordinator, these development objects have either been rated as a Medium or Low priority or is marked as not being required by go-live.

The SCA Project is currently experiencing more High severity defects than required to meet the Project’s acceptance criteria as outlined in the ‘Testing completion measures and standards’ document. While KPMG does not believe that this defect level is significantly out of ordinary for a project of this size and at this stage of its project life, carrying defects through to cutover could impact the ability for users to operate the solution as designed. KPMG has observed that the SCA Project has followed an effective process to evaluate the impact defects could have on the solution, prioritize the treatment for defects, and propose workarounds in the event no technical solution can be found. KPMG encourages the SCA Project to continue to follow the process established by the Project to treat defects and evaluate impact to cutover and go-live.

Based on KPMG’s review, the SCA Project will not be able to complete updates for documentation for all in scope RICEFWU objects before go-live. KPMG does not believe this will create a significant risk to cutover, in KPMG’s view it is appropriate to complete these updates, as planned by the project, after go-live.

Functional Testing, Non-Functional Testing

KPMG has assessed the **Functional Testing** and **Non-Functional Testing** sub-dimensions based on the criteria summarized below.

Readiness Assessment Criteria	Expectations
Functional testing approach	<ul style="list-style-type: none"> The project has followed a suitable process to test system functionality against business requirements.
Non-functional testing approach	<ul style="list-style-type: none"> The project has followed a suitable process to test system functionality against technical requirements.
Defect management approach	<ul style="list-style-type: none"> The project has followed an appropriate process to capture defects.

KPMG’s review indicates that the SCA Project has met the assessment criteria for the **Functional Testing** and **Non-Functional** testing sub-dimensions. All planned testing cycles have been completed and signed off by BC Hydro.

To assess this dimension, KPMG reviewed the following documents: ‘Testing cycle approach/kick off document’, ‘Performance Test Needs Assessment’, ‘Reporting and Non-Functional Requirements’, ‘SCA Regression Test Report’, ‘Automated Performance Test Plan’, ‘Performance Test Results’, ‘SCA Performance Test Summary’, and Testing progress and defect progress summaries in HPALM and in Weekly Project Status Updates. KPMG interviewed the Testing Leads, Business Solution Leads, Functional Consultant Leads, Technology Stream Leads, and PMO.

Functional testing approach

Based on KPMG’s observations, the Project followed a suitable process to complete functional testing. The testing cycles completed by the SCA Project are consistent with expectations from KPMG. KPMG’s assessment criteria expects testing coverage to include Functional Unit Testing, which validates system configuration and custom developed objects functionality against business requirements and development specifications; System Integration Testing, which tests the functionality of configured applications, development objects, interfaces, and boundary system functionality while executing end to end business processes; and User Acceptance Testing, where end users outside of the project team will test system functionality. KPMG observed that the SCA Project suitably completed cycles of testing that corresponded with KPMG’s expectations.

KPMG’s monthly steering committee update cover observations relating to each test cycle in greater detailed findings.

Expectations	Observed SCA Project Test Cycle	Observed Testing Dates	Quality Gates	SCA Project Results
Functional Unit Testing	Unit Testing (RICEFWU objects, security, data loads, Reporting)	December 2018 – June 2019	N/A	N/A
	String Testing	January 2019 – June 2019	Q1 – ITC1 Entry	Passed (modified)
System Integration Testing	Integrated Testing Cycle 1	July 2019 – November 2019	Q2 – ITC1 Exit/ITC2 Entry	Passed (modified)
	Integrated Testing Cycle 2	November 2019 – Feb 2020	Q3 – ITC2 Exit/UAT Entry	Passed (modified)
	Regression Testing	January 2020 – March 2020	N/A	N/A
User Acceptance Testing	User Acceptance Testing	February 2020 – April 2020	Q4 – UAT Exit/Final Acceptance	Passed

Non-functional testing approach

The Project has followed a suitable approach for completing non-functional testing. KPMG reviewed the process the SCA Project took to capture non-functional testing requirements, how testing was completed and how results were logged.

Based on KPMG's observations, requirements for non-functional testing were captured in 'SCA Performance Needs Assessment' and the 'RD02 – Reporting and non-functional requirements' documents. KPMG observed additional performance requirements were also raised during other project activities (e.g. Cutover Dry Run 1). These performance issues were logged as defects in HPALM.

KPMG observed that the project completed performance testing and validated that non-functional requirements were met through 4 activities. The SCA Project completed automated load testing, automated stress testing, automated endurance testing, and manual performance testing for ECC. The SI Functional Consultant for the Purchasing Stream indicated that the SCA Project is currently in the process of completing performance testing for Ariba. Based on KPMG's observations, the Project has adequately documented test results. The 'SCA Performance Test Summary' deliverable was completed on April 29, 2020. As of June 15th, the SI Delivery Lead indicated that all non-functional and performance defects in HPALM have been resolved.

Defect management approach

Based on KPMG's observations, the Project has followed a suitable process for identifying, completing triage, logging, fixing, and reporting defects. KPMG observed that the SCA Project has documented and monitored defects consistently in the HP Applications Lifecycle Management tool (HPALM) for all test cycles.

KPMG observed that the SCA Project took measures to reduce the likelihood that defects were closed before being fixed. While the SCA Project did not consistently capture how defects have been addressed in documentation in HPALM, the SI Offshore Development Coordinator indicated that the project did not allow defects to be closed by members of the development team. Once fixes have been completed, the SI Technology Team assigns the defect either to the owner or another member of the project team to validate that the defect has been addressed.

Overall Go-Live Readiness Assessment

Overall Go-Live Readiness Assessment

Based on this 'Go-Live Readiness Report', KPMG's observation is that the SCA Project is in an adequate position to complete cutover activities and go-live with the system solution. This report outlines several risk areas that could impact cutover or post go-live activities, however KPMG believes that the SCA Project has taken adequate measures to reduce the risk to cutover to a suitable degree in order to transition into the new solution.

Appendix A: SCA Project Stakeholder Interviews and Recurring QA Meetings

Meeting	Cadence	Attendees
Steering Committee Update	Monthly	Steering Committee Members
Working Group Meetings	Bi-Weekly	Working Group Members
Quality Assurance Services Update	Bi-Weekly	Zaheer Shivji (BCH), Hugh Smith (BCH)
Project Manager Office	Monthly	Ivette Rico (BCH), Steven Purvis (SI), Ross Hunter (SI), Michael Brandes (SI)
Solution Integration Team	Monthly	Ben Setiawan (BCH), Maryna Korsei (BCH), Tanya Peachey (SI)
Stream Lead Meetings: Project Integration	Monthly	Fred Jongeneel (BCH), Rebecca Yunker (SI), Corey Reid (SI)
Stream Lead Meetings: Inventory & Quality	Monthly	Darren Gebert (BCH), Mario Ortego (SI)
Stream Lead Meetings: Purchasing & Contracts	Monthly	Brian Wong (BCH), Kiernan Dixon (BCH), Olivier Garsault (SI), Robbin Yang (SI)
Stream Lead Meetings: Change Management	Monthly	Daniel Watt (BCH), Valerie Johnson (BCH)
Stream Lead Meetings: Technology	Monthly	Michel Maurivard (BCH), Abhinav Gupta (SI), Sandeep Paul (SI), Tys Barnard (SI)
Stream Lead Meetings: Reporting	Monthly	Wendy Cachero (BCH), Tania Cernezel (BCH), Diego Mendez (SI), Kent Jarvie (SI), Monique Verchai (SI)
Stream Lead Meetings: Work Management	Monthly	Darin Thompson (BCH), Wayne Martell (BCH), Michael Watson (SI), Victor Galina (SI), Tanya Peachey (SI)
Stream Lead Meetings: Security	Monthly	Rai Ijaz (SI), Sandra Bird (BCH)
Stream Lead Meetings: Data Management	Monthly	Tim Kikkert (BCH), Greg Turnbull (SI)
Stream Lead Meetings: Training	Monthly	Souli Vohradsky (BCH), Laura Benson (SI), Shali Virdi (SI), Sarah Low (SI), Faye Nera (BCH)
Stream Lead Meetings: Testing	Monthly	Leonid Rachlin (BCH), Ross Hunter (SI), James Uzenko (SI), Jay Aeletti (SI), Karen Watson (SI)
Lead Meeting: Business Transition Planning	Monthly	Dulcie Smith (BCH), Scott Barbour (BCH)
Project Sponsor Interview	Monthly	David Wong (BCH)
SI Relationship Partner	Monthly	Owen Taylor (SI)
Steering Committee Member Interview	Annually	Bill Earis (BCH)
Steering Committee Member Interview	Annually	Al Leonard (BCH)
Steering Committee Member Interview	Annually	Kirsten Peck (BCH)
Steering Committee Member Interview	Annually	Richard Brittin (BCH)

Meeting	Cadence	Attendees
Steering Committee Member Interview	Annually	Davor Razlog (BCH)
Steering Committee Member Interview	Annually	Kip Morison (BCH)
Steering Committee Member Interview	Annually	Gurjit Parmar (BCH)
Steering Committee Member Interview	Annually	Michael Wynne (BCH)
Steering Committee Member Interview	Annually	Melissa Holland (BCH)
Steering Committee Member Interview	Annually	Matt Wilson (BCH)
Steering Committee Member Interview	Annually	Mark Poweska (BCH)

Appendix B: SCA Project Deliverables Reviewed by KPMG

#	Document title
1	2.06.01 Training Needs Analysis
2	2.17.01 RICEFWU Tracker_ Realization
3	2.21.03 Initial Data Quality Assessment and Cleansing Strategy
4	247_Data_Validation_Meetings
5	3.04.02 Updated Process Tracker_ Realization
6	3.05.02 RP4 Printer Connectivity to SAP - Infrastructure Design Document
7	3.06.00 Data Object Tracker
8	3.06.00 Data Prep List
9	3.06.00 Data Schedule
10	Automated Performance Test Plan
11	BAS_SCA
12	BC Hydro Business Transition Plan
13	BW Developing – Gaps
14	BW Reporting – Plan
15	BW reports – documentation tracking
16	BW2 - RD01a Updated Functional Non-Functional Requirements List 2
17	Change Request Log
18	CO18 - RD09c End User Training Materials - Lesson plans
19	CO18 - RD09e End User Training Materials - Data Requirements
20	CO-18 RD17f RTM Reporting – BW
21	Consolidated Training SignOff
22	Contract Conversion Issue List
23	Conversion Functional Specification
24	Cutover Issue Tracker
25	Data Action Log
26	Data Mapping Files
27	Data Validation Plan
28	Data_Not_Migrating_to_SAP
29	Deliverable Acceptance Action List
30	DR1 Lessons Learned
31	DR2_Data_Validation_Plan
32	DR2_SCA_Cutover_Plan_Master
33	GRC Review of SCA Roles and Users v7 final
34	High Impact KBU Transition Plans
35	Hyper_Resource_and_Contact
36	Hypercare_Resource_and_Contact
37	IMP Phase Cyber Security Assessment
38	KBU Cutover Dates for TPP
39	KBU Transition Plans
40	Knowledge Transfer Approach

#	Document title
41	Knowledge Transfer Plan
42	L3 Process Maps
43	Master_TrainingStakeholderList
44	Performance Test Needs Assessment
45	Performance Test Results
46	ProcesstoCousreMapping_WM
47	RD02 – Reporting and non-functional requirements
48	RD06 EU Training – Course Outline and Role Deliverable
49	RD19 Updated Project Implementation Plan (Realization Phase)
50	RD-31 SCA Report Catalogue V1.1
51	RD-32 BW Data Dictionary
52	RD43 – Background Jobs Schedule
53	RD47 Process Design Documents
54	RD48 - Production Cutover Plan (Deliverable Acceptance)
55	Report Development Tracker
56	Reporting and Non-Functional Requirements
57	Reporting Go-Live Requirements
58	Reporting RTM_prioritized_March_12
59	REPT Go-Live RTM Status
60	RM3 Consolidated Security Spreadsheet
61	RM7 RD47 Process Design Documents
62	RTM for Reporting – BCH and Leads Solution
63	S1, S2 documents
64	SC Report_20200622
65	SC Sust RACI
66	SCA Business Cutover Tasks
67	SCA Business Resources
68	SCA Business Team – Cutover and Hypercare access
69	SCA Contract Conversion Schedule
70	SCA Cutover Go-No Go Criteria
71	SCA Data Conversion Steps
72	SCA High Level Schedule – August Go Live
73	SCA Performance Needs Assessment
74	SCA Performance Test Summary
75	SCA QA Monthly Project Update
76	SCA Regression Test Report
77	SCA S3 Role Mapping
78	SCA Security GRC Work V6-NOV 5
79	SCA TPP Progress Tracking
80	SCA Training Courses
81	SCA Training: End User Training
82	SCA Transition Sustainment

#	Document title
83	SCA Transport Sequence – Final
84	SCA WebEx Training Framework
85	SCA X05 – DR2 Captains meeting
86	SCA_BRMS
87	SCA_Cutover_Plan_Master
88	SCA_Data_Migration_Strategy_and_Approach_APPROVED
89	SCA_MMQ_CourseMapping
90	SCA_S05_Training_Env_Plan
91	SCA_Trainer_Delivery_Plan
92	SCA_Training_Course_Outlines
93	SCA_Training_Region_Requirements
94	SCA_TTT_Tracker
95	SCA-DR1-ALL kick off meeting
96	SCA-X05 UAT - Cut over kick off meeting
97	SOW_3_for_SCA_Project_V0.7.3 – Deliverables
98	Super User Analysis
99	Supplier Hypercare Model
100	Supply Chain Master Data Governance Strategy
101	Target Data Requirements
102	Testing cycle approach/kick off document
103	TPP Meetings Tracker
104	Training Coure Data Sheets
105	Training Data Creation Trackers
106	Transition Point Person – Full Listing
107	Transition_StakeholderImpacts
108	UAT Cut over Issues
109	UAT_SCA_Cutover_Plan_Master
110	Virtual Training Schedule Documents
111	Weekly project status updates
112	WeeklyTrainingMetrics_20200703
113	X.01.04 Deliverables and RASCI (Realization)_ APPROVED
114	X05 Cutover Users
115	YT-00486_DR2_Planning
116	YT-00486_Post_Go_Live_Support_Model
117	YT-00486-HL_PROD_Cutover_Plan
118	YT-00586-Post_GoLive_Support_Model

BC Hydro Supply Chain Applications Project

Progress Report No. 3

Appendix B

Risk Register

Appendix B

ID	Title	Created	Current Status	Risk Score	Impact	Likelihood	Risk Owner	Treatment Strategy	Risk Response/Mitigation
									Seek out and adopt best practices for remote training. Project go-live date deferred to provide time to rework training materials and deliver end user training remotely. Estimating that "60% of end users will be trained before go-live. Prepare the business for potential period of reduced efficiency and consider interim processes until the system is stabilized. Identify potential impact on stabilization budget and seek project reserve funding in case this risk materializes.
118	Risk that training & stabilization in remote environment is not as effective	2020-05-11 17:07	30. Mitigation Strategy Defined	15	3	5	Shivi, Zaheer	Treat (or Reduction)	SCA project established as a key priority by the Executive Team. A Solution Alignment Form has been established to manage system changes and environment availability. This body has representatives from each of the major ongoing projects.
30	Interdependencies between SCA and other ongoing initiatives	2018-04-03 16:40	30. Mitigation Strategy Defined	6	2	3	Rico, Ivette	Treat (or Reduction)	Project has no option but to accept this risk. Will continue to connect with the Controller's office to better understand any potential requests of the project so they can be accommodated into plans as early as possible.
76	Change in BC Hydro external auditor could introduce additional testing or review requirements	2019-01-23 10:54	30. Mitigation Strategy Defined	6	2	3	Shivi, Zaheer	Tolerate (or Acceptance)	Conduct analysis of transaction channels and mapping to existing contracts to determine which vendors will transact on each platform (Arba vs. ECC Fiori). Use the outcome of this analysis to: -refine estimate of future document volumes and compare to benchmarks provided by Arba and existing commercial arrangements; - estimate number of vendors/users who will need to access ECC.
84	Additional SAP ECC or Arba licensing may be required to support future state service entry sheet proce	2019-03-25 22:53	30. Mitigation Strategy Defined	6	2	3	Shivi, Zaheer	Treat (or Reduction)	- leverage BCH IT as required to engage in commercial discussions with SAP Updated impact assessment completed in Design Stage confirmed there is not likely to be any significant change to union roles or job descriptions as a result of the project. Will keep risk open and continue to monitor as impacts to specific roles continue to be detailed through Realization. Impacted roles will be reviewed as part of the Transition Planning effort via the Transition Planning Teams. WR representation will be on the teams to lead any effort to communicate with the union and make updates to Job Descriptions.
26	Potential impact to union roles / job descriptions as a result of the project	2018-02-26 11:06	30. Mitigation Strategy Defined	4	2	2	Johnson, Valerie	Treat (or Reduction)	This risk could be mitigated by a combination of terminate & treat, ensuring all required data is captured in ECC, SharePoint, etc and extracted to the BW with appropriate end user tool, or an IT support model for ensuring access to the data when needed.
34	Level of continued support for scheduled and ad-hoc excel exports on SCA data in Passport & SAP	2018-05-01 9:30	30. Mitigation Strategy Defined	4	2	2	Selawan, Ben	Terminate (or Avoidance)	Will continue to monitor development of reporting specs and data model to minimize likelihood of missing key data elements from the reporting model. Deliverable R051 also added to provide additional understanding / review / sign-off of the BW data models.
90	Missing data elements in SCA/BW data model to meet SCA reporting requirements	2019-05-28 23:11	30. Mitigation Strategy Defined	4	2	2	Smith, Hugh (SAP PM)	Treat (or Reduction)	Team has been operating remotely since mid-March and continues to function effectively. Project will continue to follow BC Hydro guidance regarding minimizing potential contact with the infection.
117	Risk that a significant portion of the project team or key individuals within the project team are infected	2020-04-28 10:58	30. Mitigation Strategy Defined	4	4	1	Shivi, Zaheer	Terminate (or Avoidance)	BCI has provided ABAP code guidelines to PwC at the start of the SCA Project and the expectation is that these are followed. BCI has run manual verifications of some of the BRWs in SAP ECC and would expect PwC to acknowledge the resulting report and address the topics raised within the report. Here is the link to this report: https://hydroshare.bchydro.bc.ca/sites/SCAP/Delivery/3%20Realization/3.05%20Development/3.05.02%20ABAP%20Code%20Review%20Review.docx?d=webcontent/152ca10786418e818482ba BCI has additionally engaged SAP in order to configure and deploy a set of automated tools enabling Custom Code Quality Improvement that include the capability of automatically generating custom code quality reports that BCI expects PwC to acknowledge and address any resulting concerns.
119	ABAP code quality and documentation doesn't always align with BCI standards	2020-05-19 12:42	30. Mitigation Strategy Defined	3	1	3	Hunter, Ross	Treat (or Reduction)	Service masters and use in services will be determined in purchasing workshops, currently mitigating other service related risks through elevation and visibility.
12	Extent of use of Service Masters and Services in Design	2018-02-05 13:29	40. Closed	16	4	4	Trask, Jon	Terminate (or Avoidance)	Activity focus on critical path activities leading towards Playback and Extend Design duration for 2 weeks to allow completion at current high intensity
41	Schedule/Quality Risk: not to make to Playback in time/quality	2018-05-17 23:31	40. Closed	16	4	4	Buehner, Carsten	Tolerate (or Acceptance)	Risk has passed. RICEFMIU scope confirmed.
44	RICEFMIU exceeds baseline estimates. Reduction of objects may impact solution design	2018-05-22 9:06	40. Closed	16	4	4	Shivi, Zaheer	Tolerate (or Acceptance)	The mandate for the project is not to change existing BC Hydro reporting tool and strategy
25	BC Hydro Dashboard tool running out of support and not user friendly	2018-02-26 10:10	40. Closed	15	3	5	Buehner, Carsten	Tolerate (or Acceptance)	Kiernan, Nicole and Hanif will get the right people from Category management and IT to identify all possibilities of expediting the sourcing process in related areas.
66	IT sourcing award in June 2019 conflicts with SCA schedule	2018-11-06 17:18	40. Closed	15	3	5	Dixon, Kiernan	Tolerate (or Acceptance)	Plan B: Start the design based on current supplier (Compugen) and twist it later on once the real supplier is confirmed.
93	Technical build not completed before ITC1	2019-05-29 9:55	40. Closed	15	3	5	Hunter, Ross	Terminate (or Avoidance)	Close design decisions Ramp up build throughput (capacity, collaboration across teams)
98	Arba Timeline	2019-05-29 17:24	40. Closed	15	3	5	Dixon, Kiernan	Treat (or Reduction)	Other mitigating actions: PwC visit to offshore office to manage delivery closer. Re-planning exercise going on now to include CRs and forecast which objects will be completed by Jul 19 and which will not be ready for Jul 29 (official start of ITC1)
112	Impact of COVID 19 on training delivery and stabilization activities	2020-03-17 11:45	40. Closed	15	3	5	Shivi, Zaheer	Treat (or Reduction)	Escalated to issue 75 as items not delivered per schedule. Project is currently assessing training delivery options and reviewing healthcare approaches to determine how best to mitigate. Impact the timeline and cost in process.
13	Meaningful engagement of Business before Workshops	2018-02-05 13:39	40. Closed	12	3	4	Trask, Jon	Tolerate (or Acceptance)	Wayne has weekly meeting with Design Group; update meeting was conducted with Field operations group steering committee; conversations had to elevate with working group members (PCM & Generation); ongoing involvement with SME's by teams; regular bi-weekly working group meeting; 2 cycle workshop methodology with mini-playbacks and playbacks; change management team involvement in sessions
21	SCW and SCA Scope	2018-02-20 11:56	40. Closed	12	3	4	Trask, Jon	Treat (or Reduction)	Identify that scope does not include replacement of SCW, workshops must consider interface or integration in solution. We will not replace SCW with SAP/Arba. Specific workshops in scheduled in Cycle 2 to review and develop solution for how SCW Arba and ECC interact.
22	Unifier and SCA Scope	2018-02-20 12:02	40. Closed	12	3	4	Trask, Jon	Treat (or Reduction)	Clarification of scope in Leads meeting, workshops to consider implications of unifier in SAP design Specific workshops in scheduled in Cycle 2 to review and develop solution how projects related contracts will be managed going forward between ECC, SCW and Unifier (decommissioning of Unifier being contemplated)
27	Test Tool version, schedule and support dependant on BCH IT PMO team	2018-02-28 9:32	40. Closed	12	3	4	Charbonneau, Kim	Terminate (or Avoidance)	Work with IT PMO team to get early SCA project set up in existing 11.x version and stay in communication with them on status of 12.x upgrade. Investigate plan B to determine if implementing stand-alone SAP for Arba is feasible and Plan C to stay on 11.x and not upgrade.
28	BCH Business Lead playing dual roles on the project (old risk 77)	2018-02-28 12:00	40. Closed	12	4	3	Smith, Hugh (SAP PM)	Treat (or Reduction)	The project will continue to monitor. Consider elevating one of the Business Solution Leads to take on some of the Business Lead role.
42	Resource Risk related to extended high work intensity	2018-05-17 23:36	40. Closed	12	4	3	Buehner, Carsten	Treat (or Reduction)	Extend Design duration further [1-2 weeks] to allow for some relief on intensity
60	PS Single Network Header Usage	2018-10-18 9:45	40. Closed	12	3	4	Jongeneel, Fred	Tolerate (or Acceptance)	Explore impact on allowing multiple network headers - in particular for potential risk with the P6 and BW interfaces as well as access impact for end users.
65	BW migration on HANA may result in impact to SCA reporting development	2018-11-02 8:41	40. Closed	12	3	4	Gupta, Abhinav	Treat (or Reduction)	Immediate next step is to assess the impact and come up with a mitigation strategy
68	Functional Team Resource Constraints for BW Reports	2018-11-21 16:31	40. Closed	12	3	4	Rico, Ivette	Tolerate (or Acceptance)	Ivette to determine.
75	L3 Process Review time is taking longer than expected, impacting project schedule	2019-01-16 17:19	40. Closed	12	3	4	Brandes, Michael	Treat (or Reduction)	Darren is scheduling meetings this week for MMQ to clarify requirements including finance for repair and refurbishment. Wayne is bringing in some additional Distribution business resources to assist with the review and approval of Distribution flows. Stations flows have been sent to SWPE project for feedback. Plan still needed for other business areas which are outstanding (e.g. T lines).
97	Reporting Timeline	2019-05-29 10:02	40. Closed	12	3	4	Hunter, Ross	Treat (or Reduction)	Issue triggered (reference issue 80). Plan to be updated to accommodate delivery of reporting on later timeline.
108	Unstable Solution due to High Number of Arba Issues	2019-11-27 22:55	40. Closed	12	3	4	Luna, Leonardo	Treat (or Reduction)	PROPOSAL: 1) Leverage the help from the SAP representatives for BC Hydro to assist in the stabilization of our solution by creating another "Mission Critical" ERP/Arba resolution team to resolve our issues faster. 2) Adjust our solution so that PO's that have gone critically wrong can exit the Arba processes, so their processing can be completed as regular non-Arba PO's. For example, by allowing Sustainment to add them to an exception table. We are reviewing tasks dependencies, possibility to reduce the time, prioritize transactional data (Contracts, PO's that need to be ready day 1). We also plan to discuss with Customer Care and evaluate the possibility to close Call Center earlier than 5 pm.
113	Window to complete cut over tasks for Go Live	2020-03-17 14:29	40. Closed	12	3	4	Rico, Ivette	Treat (or Reduction)	The system will be design to determine PO Tax code as accurate as possible based on the tax indicator on vendor, plant, and material master/service master/material group. The system will display a warning on PO creation/change if the PO belongs to generation plants so the user can check the tax code and enter the right one. See Decision 117.
77	More time and effort to be involved in 'Purchasing Tax Determination' solution design	2019-02-07 14:22	40. Closed	10	2	5	Yang, Robbin	Treat (or Reduction)	Discussion required Project conversion is at the end of the conversion process. Project PO's are the only downstream object from the network activities and components. Project PO's may not be required on day 1, and it may be acceptable to take longer to load project PO's. If project is taken out of the critical path and allowed to run longer this would isolate the schedule risk to a smaller area. Furthermore, if necessary, projects could prioritize their networks into two batches allowing some projects to be converted sooner.
102	Requirements for approvals design may not be fully reflected in the current design	2019-06-28 11:24	40. Closed	10	2	5	Shivi, Zaheer	Treat (or Reduction)	Risk has now passed. Schedule extended per Steering Committee approval (PLC's 27, 28, and 29) to resolve resulting quality impacts of aggressive schedule. Ensure progress tracking and management processes in place. Use escalation processes as needed to resolve any issues / delays that may arise. Schedule extended per Steering Committee approval to reduce workload on team and allow time for deliverable quality.
114	Load of network activities and material components is really slow and may exceed the cutover weekend	2020-03-30 9:28	40. Closed	10	2	5	Rico, Ivette	Treat (or Reduction)	TBD
14	Quality Impact due to Aggressive Schedule	2018-02-08 20:54	40. Closed	9	3	3	Luna, Leonardo	Tolerate (or Acceptance)	Develop approach to decide on appropriate user experience and decision approach with Working Group.
23	Aggressive schedule of Design Stage	2018-02-22 10:45	40. Closed	9	3	3	Smith, Hugh (SAP PM)	Treat (or Reduction)	To conduct sessions with WG during May to present C2 Playback Methodology, present Approval Flow and Deliverables Templates (Integrated Design Report).
29	Inability to properly limit access to supply chain information	2018-03-19 11:38	40. Closed	9	3	3	Simpson, George	Treat (or Reduction)	Update June 04 - WG session scheduled June 06. Risk has passed. Additional session completed to enable successful completion of Playback and approval of the IDR.
32	Extent of Fiori (or similar) user interface enhancement required	2018-04-27 16:05	40. Closed	9	3	3	Gupta, Abhinav	Treat (or Reduction)	Technical and Functional Team will be assembled to run Use Case simulations between SAP and the Passport to validate the impacts, magnitude of change, configuration options and prepare a findings report that will be assessed by BCI to assess the risk and next actions.
35	Lack of clarity / pre-socialization with Working Group on design approval process may slow approval tin	2018-05-04 9:10	40. Closed	9	3	3	Yang, Robbin	Treat (or Reduction)	Risk has passed. Plan has been updated such that the Integration Manager will transition into the role of cover lead.
45	Impact of the Passport mechanism for Average Unit Pricing calculation versus the SAP Moving Average I	2018-05-22 11:57	40. Closed	9	3	3	Martel, Wayne	Treat (or Reduction)	Additional review sessions held with IT to confirm solution meets additional requirements. Risk has passed.
49	Plan to use the data leads as the project cutover leads not BC Hydro's standard approach	2018-06-07 15:43	40. Closed	9	3	3	Praveen, Roch	Treat (or Reduction)	Project team preparing various scenarios for review with Steering Committee. Continue to work through detailed project plans with PwC to confirm project estimates. Process completed and cost estimates aligned.
51	Solutioning for IT will extend beyond Design for Telus TSR replacement project	2018-06-15 22:30	40. Closed	9	3	3	Luna, Leonardo	Treat (or Reduction)	
57	Overall project budget may exceed upper bound cost estimate of 79.3M	2018-08-14 12:42	40. Closed	9	3	3	Smith, Hugh (SAP PM)	Treat (or Reduction)	

Appendix B

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									<p>High level plan for developing a plan:</p> <ul style="list-style-type: none"> - Facilitate series of conversion workshops with functional and business teams with the objective to document the approach for each object and uncover hidden assumptions [COMPLETE] - Present high level approach for each object as a slide (for working group signoff in place of approving DTD) [COMPLETE] - Develop conversion estimates, schedule, and resource plan for approved scope. [COMPLETE] - Identify data quality issues that impact the project based on the approved conversion scope. [COMPLETE] - In consultation with the business develop data remediation plans for issues impacting the project-plan exists - approval from accountable WG members in progress [IN PROGRESS] <p>Most current data prep items (75% by record count) will be reviewed with the accountable WG member by the end of the month. Initial dashboard showing progress against data prep items will be published by the end of Jan, as originally communicated to WG. Once the dashboard is published and work is underway this risk should be closed.</p>
58	Plans for data conversion, data clean-up and data creation not fully detailed as of the end of Design Stage	2018-10-02 12:40	40. Closed	9	3	3	Turnbull, Greg	Treat (or Reduction)	
70	Records Managements requirement might require more complex technical solution	2018-11-22 16:31	40. Closed	9	3	3	Rico, Ivette	Treat (or Reduction)	<p>1) Review of targeted areas of the design by Senior Procurement Manager (Rob Dodman) during March and April</p> <p>2) Design walk-through sessions with Rob Dodman, Linda Beardsell, Maryna, Zaheer and Purchasing team held on April 12, April 26 & May 3</p> <p>2) Review of Purc decisions at the Open design workshops with the broader SCA team</p> <p>3) Integrated LI review sessions with the broader SCA team</p> <p>4) Involvement of the Business Lead, and external stakeholders (e.g. Linda) into the design or implementation issues as required.</p>
79	The design of Purchasing solution in not clearly understood by different stakeholders involved	2019-03-06 10:02	40. Closed	9	3	3	Korsel, Maryna	Treat (or Reduction)	<p>Possible mitigation options, individual or combined: Keep process as-is: SES approvers will be responsible of catching double-entries - this is the whole point of the SES approval process. CON: approvers may not be able to catch this unless they're aware of what has been entered so far. Business areas should be responsible of running reports, such as the M2S: Planned/Actual Comparison, to check their planned versus actual charges, and do a check for duplicates. CON: it is after the fact, it is unlikely business areas will run this, and if a duplicate is found, it will require reversal efforts. Ask suppliers to always provide a unique reference number in their entry sheets, entered by them or submitted to a BCI administrator via email, and add a custom validation in the SES process to issue an error or a warning. CON: additional custom development, and suppliers can easily ignore this rule. Create an automatic notification to the SES creators and approves when similar SES entries exist in the system. CON: Duplicate check rules would not be 100% reliable and could become a nuisance.</p>
91	Overpayment due to Duplicate Service Entry Sheets	2019-05-28 23:30	40. Automated	9	3	3	Garsault, Olivier	Treat (or Reduction)	
121	Connectivity between Ariba and SAP-ECC might not be working on August 4th	2020-07-15 18:10	40. Closed	9	3	3	Rico, Ivette	Treat (or Reduction)	<p>In case there's no connectivity with Ariba, we could disable Ariba and send Purchasing documents by Email.</p> <p>A detailed contingency plan will be detailed</p> <p>SAP suggested to implement CIG Add on in Production before Go Live to have time to troubleshoot</p> <p>SCA will support MRO target state (process and roles) with a set of solutions as outlined below.</p> <p>A. Clarity has been established regarding target business process for MRO materials. Anticipated future state is based on the process currently piloted in Vernon (referred as 'MRO Pilot') and assumes the following:</p> <p>1) Field Store keeper will manage MRO materials for all BC Hydro organization, ordering from MRO Supplier directly as required:</p> <ul style="list-style-type: none"> • to maintain a standardised complement of materials "On Hand" (so-called "Working Stock MRO"), while • non-standard items will be ordered "On Demand" on behalf of requestors (multiple business users). A back office "cost allocation" would happen via JV cost allocation process afterwards. <p>2) Materials will be delivered by MRO supplier directly to the Field Store.</p> <p>B. Upon such clarifications provided by the Category Management, the following SCA solutions were discussed and deemed to be optimal in order to support future management of MRO materials:</p> <p>1) Ordering:</p> <ul style="list-style-type: none"> • A range of standard ECC purchasing channels (PO, Non-PO invoices, Framework PO) will support transactional activities in ECC for MRO and will provide certain flexibility to accommodate: • anticipated MRO business processes as per 'MRO Pilot' initiative and • ordering model established under potential future contract in Q4 F19 - Q1 F20 (upon RFP completion) • Ariba Punch-out catalogues will support ordering activities with Vendor catalogues integrated into ECC. This will allow FS Keepers to replenish MRO materials stock at the Field Store or satisfy ad-hoc requirements by leveraging supplier online catalogues through ECC instead of placing orders via phone or by logging into the supplier's website. • If non-PO channel is chosen, ability to pay with the credit card will remain post SCA Go-Live (currently MRO is paid mostly by the credit card) <p>2) Receiving:</p> <ul style="list-style-type: none"> • Ariba has passed. Use of Ariba confirmed and consistent with project budget. <p>After completing the Reporting Requirements review we will evaluate the priorities and work only on "Must have" reports (Priority 1 and 2) to reduce potential rework after Go Live.</p> <p>Setup interfaces as per current approach (no issues), and if MMQ later decides to make inbound deliveries relevant for picking, we'll investigate where it breaks and how we can resolve the issue. In the meantime, we'll also ask Ariba to explain why the deliveries must be set as not relevant for picking for the ASN interface to work.</p> <p>Response from SAP from 2019/Feb/22: This appears to only be needed for zero quantity ASN's, which are normally not used, so suggestion is to just flip it on if we do need picking in the future. We could then log an SAP incident if regular ASN's do not work.</p> <p>MMQ BSL is currently in conversation with the Proposal Lead (Steve Quinn) and will be listed as optional attendee on all upcoming proposal review/assessment meetings.</p>
38	No Solution for MRO	2018-05-14 3:19	40. Closed	8	2	4	Yang, Robbin	Treat (or Reduction)	
39	Unsuspected Project Costs from Implementation of Online Catalogues via Ariba	2018-05-14 3:31	40. Closed	8	2	4	Shivi, Zaheer	Treat (or Reduction)	
69	BW Rework and New Reports Post SCA Go Live	2018-11-21 16:38	40. Closed	8	2	4	Rico, Ivette	Treat (or Reduction)	
78	Ariba-Advance Ship Notice enhancement needed if MMQ needs Deliveries to be Picking Relevant	2019-02-22 0:00	40. Closed	8	2	4	Gebert, Darren	Tolerate (or Acceptance)	<p>Risk has passed. Enterprise structure confirmed through Design Stage. Included in Implementation plans to deploy.</p> <p>Complete Gate 3 approval in two stages. Initially complete approval of as many items as possible prior to special Board meeting then plan for a follow-up approval of any outstanding items. Final Gate 3 approval will take place after the special Board meeting and after the Phase 2 regulatory application has been filed. Risk has passed. Gate 3 successfully past September 13, 2018 ahead of special Board Meeting on September 27, 2018.</p> <p>To be reviewed as part of the results of planned system performance testing.</p> <p>Monitor Unit Testing for meeting Q-Gate for Integration Testing, monitor Integration Testing so UAT is not impacted.</p> <p>Risk has passed per KPMG Design Review Report.</p> <p>The Fit/Gap (Requirement) Masterlist is a Deliverable for Design stage closure, disposition of each requirement with an appropriate closing status, assessment comment and a business lead review a defined and KPI tracked key activity.</p> <p>Risk has passed per KPMG Design Review Report</p> <p>Related to risk 30. Projects to continue to coordinate timing and activities to minimize mutual impacts. SCA project takes priority in case of significant conflict.</p> <p>PMO. Business has agreed to assign multiple part time resources (Greg Kowal to act as point person to coordinate the resources).</p> <p>Each BSL has been asked their strategy to deal with potential conflicts including identifying other project and business resources that can build solution knowledge in order to take on some CM activities</p> <p>Change Advisors have been assigned to each workstream to establish well planned focused activities to maximize BSL impact</p> <p>Establish Influencer/Relationship Steward tactic to identify influential business resources in each impacted area to act as conduits for communication & engagement. Influencers are actively supported by Relationship Stewards (including BSLs) to build/channel solution knowledge to impacted Stakeholders</p> <p>Similarly the vendor setup as much as possible by Allow A/P to enter the Ariba start date directly in ECC do not make this an MDG field that will require a CRBuild the system enhancements towards the automation of the Ariba-vendor setup (e.g. automatically detect when a vendor is Ariba or not using the Ariba start date) Adjust the Ariba configuration in ECC as generic as possible so that no vendor-specific configuration is needed (e.g. setup general output conditions that enhancements will override just for Ariba vendors).</p>
81	Customer Build Program - BCI provides Materials to ESPs directly	2019-03-20 17:58	40. Closed	8	2	4	Gebert, Darren	Treat (or Reduction)	
86	Realization of benefit of improved inventory turns may be impacted by poor scheduling compliance	2019-03-29 13:06	40. Closed	8	2	4	Sveinson, Laurie	Treat (or Reduction)	
100	Training Risk - "Train the BCI Trainers" Effectiveness for Demand/MRP Related Solutions	2019-06-18 16:50	40. Closed	8	2	4	Gebert, Darren	Treat (or Reduction)	<p>Continued Knowledge Transfer</p> <p>Confirmed Course Outline and Delivery Approach</p> <p>Review the scope with Work Management.</p> <p>To mitigate this risk, we added one more week to UAT schedule (increased from 3 to 4 weeks)</p>
110	UAT timeline might need to be extended	2019-12-18 16:26	40. Closed	8	2	4	Rico, Ivette	Treat (or Reduction)	
115	SAP user validation impact on conversion objects	2020-04-01 17:34	40. Closed	8	2	4	Rico, Ivette	Treat (or Reduction)	
9	Ability to identify and confirm Business SME's for planned Kick-Off	2018-01-29 18:56	40. Closed	6	2	3	Shivi, Zaheer	Treat (or Reduction)	<p>PMO designed options and impacts and collectively moved the Kick-Off to 29 Jan 2018.</p> <p>Initial investigations underway, focus topic in Design</p>
17	Scope Risk related to potential increase of MDG with impact on MDG and broader System Integration S	2018-02-16 9:09	40. Closed	6	2	3	Schellekens, Harold	Terminate (or Avoidance)	
24	CDC - Central Distribution Center Decision is made but not implemented yet	2018-02-23 8:24	40. Closed	6	2	3	Peachey, Tanya	Treat (or Reduction)	
33	Timing risk of completing ITDSP Gate 3 approval may become bottleneck on Imp Phase approvals	2018-04-30 12:55	40. Closed	6	3	2	Schellekens, Harold	Treat (or Reduction)	
37	Performance issues SAP ECC-Transaction C120N	2018-05-11 9:00	40. Closed	6	2	3	Gupta, Abhinav	Treat (or Reduction)	
40	Schedule and scope for UAT and Regression	2018-05-17 9:36	40. Closed	6	2	3	Charbonneau, Kim	Treat (or Reduction)	
47	RICEFW Tracker usage (KPMG Item May 18, 2018)	2018-06-01 14:48	40. Closed	6	2	3	Schellekens, Harold	Treat (or Reduction)	
48	Proper disposition / documentation of items within Fit / Gap log (KPMG Item May 18, 2018)	2018-06-01 14:52	40. Closed	6	2	3	Yang, Robbin	Treat (or Reduction)	
50	Potential conflict on QM configuration/design for meters (devices) between SCA and Meter Tracking (V	2018-06-13 18:27	40. Closed	6	2	3	Rico, Ivette	Treat (or Reduction)	
61	QM Key User Availability during Realization Phase	2018-10-22 14:30	40. Closed	6	2	3	Rico, Ivette	Treat (or Reduction)	
63	Capacity of Business Solution Leads	2018-10-25 12:17	40. Closed	6	2	3	Shivi, Zaheer	Treat (or Reduction)	
64	A/P workload may increase as a result of the future Ariba scope	2018-10-29 18:58	40. Closed	6	2	3	Luna, Leonardo	Treat (or Reduction)	
67	Central Warehouse Renovation Project	2018-11-19 11:59	40. Closed	6	3	2	Gebert, Darren	Treat (or Reduction)	
71	Additional BW net new requirements, could introduce additional scope for custom development	2018-11-22 17:26	40. Closed	6	2	3	Brandes, Michael	Treat (or Reduction)	
72	Lack of functional specs will impact dev. teams ability to meet RM2 development targets	2018-12-07 13:31	40. Closed	6	2	3	Brandes, Michael	Treat (or Reduction)	
83	Transmission Line workflow will not operate correctly if business does not agree to change some currer	2019-03-25 14:15	40. Closed	6	2	3	Martell, Wayne	Treat (or Reduction)	

Appendix B

ID	Title	Created	Current Status	Risk Score	Impact	Likelihood	Risk Owner	Treatment Strategy	Risk Response/Mitigation
85	Loss of knowledge continuity due to illness of Finance Lead	2019-03-27 13:25	40. Closed	6	2	3	Shivji, Zaheer	Treat (or Reduction)	Risk Response/Mitigation Project team summarizing list of inputs required from Finance, along with estimate of effort and timing. Project team will work with Finance Directors to identify resources for each activity. Andrea Ling has transitioned into the role to provide support in Maria's absence. Prep for, engage right participants, closely manage discussion, push for clear decisions
92	Detailed design is not completed by April 29th	2019-05-29 9:51	40. Closed	6	2	3	Peachey, Tanya	Treat (or Reduction)	Risk has passed. Start of ITC2 delayed by 6 weeks while project ensured entry criteria met. ITC2 and UAT completed successfully.
94	With only one planned comprehensive test cycle (ITC2) we may fall short of Q4 Gate	2019-05-29 9:57	40. Closed	6	3	2	Hunter, Ross	Treat (or Reduction)	Risk has materially passed. Project continues to work to update timeline for completing ITC1 activities. Identified defects being resolved based on priority. While some process / design items logged, no significant design gaps were identified.
96	Quality Issues (incl. design) may show up in ITC1	2019-05-29 10:00	40. Closed	6	3	2	Hunter, Ross	Treat (or Reduction)	Risk has passed. Reviewed proposed detailed design with key stakeholders and confirmed that approach is acceptable. CR 276 logged to track addition of new auth objects to control table. 1. Data team completes initial loads in S07/S07. 2. Determine the conversion window within the cutover window (based on how long all of the other tasks in the cutover plan take). 3. Extrapolate performance in S07/S07 to better determine impact and probability of risk. 4. Determine when in the schedule a full size environment will be available. 5. Arrange for Basis support to monitor test runs to look for opportunities for performance improvements. 6. Determine when a full size environment will be available for performance testing conversion and advance this schedule if determined necessary by any of the tasks above.
99	Inability to sufficiently restrict access to Supply Chain data in BW	2019-05-31 10:18	40. Closed	6	3	2	Shivji, Zaheer	Treat (or Reduction)	Project to review technology implications of moving forward with current SCA design or look at other options. Risk has passed. Plan established with sustainment group as to how to proceed with contractor portal development.
101	Performance of conversion during cutover weekend	2019-06-21 14:07	40. Closed	6	2	3	Hunter, Ross	Treat (or Reduction)	UAT completed successfully. To be addressed in training. Will continue to monitor in production to assess impact, if any. smith.Training material development prioritized and included in CO-18. Submission of initial set of pre-go-live materials completed on schedule. Remaining materials continue to progress on schedule. Risk has passed - materials developed successfully as required.
103	Existing Contractor Portal Technology Version	2019-07-24 9:25	40. Closed	6	2	3	Barnard, Tys	Treat (or Reduction)	Given the dependency (i.e. testing, etc.), we'd recommend Ivette and Michel reach directly out to the project. The project is the MAM Project (PM: Peter Mastens). Risk has passed. Technology stack fully upgraded. No issues reported since go-live. If any issues occur, will be managed through the stabilization incident management process.
104	User interface for entering materials from Outline Agreement might not be acceptable for end users	2019-09-10 15:13	40. Closed	6	2	3	Setiawan, Ben	Treat (or Reduction)	Deliverables that are mandatory for GL prioritized and non-mandatory deliverables deferred to post go live per CO-18. Some residual risk that priority deliverables will still not be completed. Continue to monitor progress. Risk has passed and Gate 4 past successfully prior to go-live.
105	Training materials not developed in time for initially planned training delivery dates	2019-09-25 15:19	40. Closed	6	3	2	Hunter, Ross	Treat (or Reduction)	Work completed to set up WiFi printers. Risk has passed. Use fall back process to support the outage resolution Get approval to go to Metroworld office in case some cut over participants don't have power. Confirm the status and pending outcomes with Leadership.
106	Mobile Technology Infinite Load Issues	2019-11-05 10:49	40. Closed	6	2	3	Maurivard, Michel	Treat (or Reduction)	Seek Executive approval to proceed with some Implementation Phase activities ahead of receiving the BCUC decision / approval of Implementation Phase funding, assuming there is a high level of confidence that a positive decision will be received. Approach approved by ET April 24, 2018. Board resolution approved Sept 27, 2018 to allow project to begin imp activities while regulatory process completed in parallel. Slight residual risk remains in process extends beyond six months. Residual risk now past as the commission has issued its decision on the Implementation Phase funding.
107	Not all deliverables might be completed to Pass Gate 4	2019-11-27 17:09	40. Closed	6	2	3	Purvis, Steven	Treat (or Reduction)	Introductory meeting held between SCA and OIP project management offices in October 2018. Regular touchpoints arranged between SCA and OIP Business Leads, Solution Leads and Project Managers. Will continue to monitor key decisions to identify areas of overlap or conflict.
109	WiFi Printers not connected to BCH Network at 1MDC	2019-12-10 15:41	40. Closed	6	3	2	Rico, Ivette	Treat (or Reduction)	Previous mitigation plan (pre Oct 2018). Confirmed approach that SCA is priority over potentially conflicting project plans between the projects. Senior Operations representative involved with the Operating Model added to the SCA Working Group to ensure alignment of future state designs. Regular communications between CLRA and SCA projects. Interim SCA Tech PM to move to managing the CLRA VMS project. Sustainment specialist working part time on both projects to ensure alignment of design and timing.
120	Storm occurs while we perform cut over tasks	2020-07-06 15:47	40. Closed	6	3	2	Rico, Ivette	Treat (or Reduction)	Regression testing completed successfully. An integrated project plan has been created by St. Trisnor and BC Hydro sustainment team to ensure a comprehensive testing and conversion approach. Plans progressing on track. Continue to monitor. Risk has passed - PasPort and SAP functioning correctly in production.
10	BCH Work Management Business Lead not committed full time yet	2018-01-29 19:00	40. Closed	4	2	2	Shivji, Zaheer	Treat (or Reduction)	Current POW reports will continue to operate for some period post go live while users are transitioned to new SAP and BW reports. Custom reports to be developed post SCA go-live to replace "copy" of PasPort system utilized for supply chain historical data access. SCA project will ask for a freeze of the Pre-Prod environment to ensure other projects are not going live at the same time or impacting SCA. This will greatly reduce the risk of other non-SCA changes impacting SCA after IT Cycle testing where current non-SCA regression testing is planned. Risk has passed - regression testing and go-live executed successfully. Risk has materially passed. Tania Carnezel has been assigned to complete design process. Will continue to monitor for initial months of Realization.
15	Start of Implementation Phase may be delayed due to phase funding approval delay	2018-02-15 10:22	40. Closed	4	4	1	Smith, Hugh (SAP PM)	Treat (or Reduction)	Assign a single owner from the SCA project who will be accountable for building an overall plan that includes all impacted activities, groups and objects, with a clear timeline and identification of critical path.
18	Other Project Risk: Operations Integration Program	2018-02-19 22:49	40. Closed	4	2	2	Smith, Hugh (SAP PM)	Treat (or Reduction)	Risk materially passed. Tania Carnezel assigned to complete this activity. Will continue to monitor through early Realization phase. Internal team end-to-end L3 reviews late November: I will work with the BAs to organize sessions to walk through the process flows end to end with their own team members to ensure the proper Security Roles (RO) are noted in the swim lanes, RICEFWI are noted where relevant, process steps and sequence are correct and the steps are understood by the team and ready to be incorporated into PDD, test scripts and training materials. They will also validate that inputs/outputs to other team L3 flows are consistently connected Integrated team end-to-end L3 reviews in February: integration team will select a set of integrated process flows to review in cross team sessions over several days to ensure integration between process maps is reviewed Additional Integrated L3 sessions held in May 2019 as part of the Open Design closure sessions. Team feels key touch points have been reviewed and further sessions in advance of integration testing are not required. Integration test scripts will be created which test processes end-to-end and by their very nature will test cross team processes, inputs and outputs Will also be setting up a regular "Integration" touch base meeting with the BAs to make sure they are aligned, integrated and producing consistent Process deliverables. Risk has now passed. All review activities completed successfully.
19	Other project risk: CLRA VMS development and timing risk	2018-02-19 22:57	40. Closed	4	2	2	Rico, Ivette	Treat (or Reduction)	Close follow up on decision making and MDRS Documentation Currently MRP / Demand Management Activities and Master Data has been split among different members of the teams in order to perform baseline configuration. No immediate action will be taken to mitigate this risk. Risk will be re-evaluated closer to ITC1 when the resourcing of the Data team is expected to change. Plans in place to remove treatment of per se number as confidential. Some minor residual risk that may not be fully complete prior to go-live. Will continue to monitor and develop temporary workarounds if necessary.
20	Residual risk to "turn off" supply chain functions in PasPort.	2018-02-20 10:37	40. Closed	4	2	2	Peachey, Tanya	Treat (or Reduction)	The Personnel ID has been declassified to non-confidential. This risk can be closed.
31	Access to historic POW for Supply Chain Reports	2018-04-25 9:53	40. Closed	4	2	2	Setiawan, Ben	Terminate (or Avoidance)	Ensure system performance is enough to prevent bottlenecks such as this one. Monitor.
46	SCA Regression Testing not final testing cycle	2018-05-29 16:13	40. Closed	4	2	2	Rico, Ivette	Treat (or Reduction)	Cutover planning steps prioritized and proceeding well. Business cut over key dates have been identified and communicated to the Business. Broader communication to BAs and Suppliers is planned. Continue to monitor. Risk has passed - go-live executed successfully. To be tested through system performance testing per current plan and resolved as required.
52	Absence of Overall Plan and Owner for Material/Service Group	2018-06-19 10:58	40. Closed	4	2	2	Peachey, Tanya	Treat (or Reduction)	Will continue to monitor if proposed solution causes significant issues for the business. Although it wouldn't be ideal. The current LSMW can update values on Service Masters. It would require a request to IT to make a mass change. But it could be done. Assign Access to SAP Sandbox for Functional Consultants within 5 Days. Risk has passed. Training delivery plans being reviewed to accommodate need to deliver remotely. Timelines to be adjusted accordingly. Duplicate. Risk cancelled.
53	Absence of Overall Plan and Owner for Service Master	2018-06-19 12:49	40. Closed	4	2	2	Peachey, Tanya	Treat (or Reduction)	Duplicate of risk 30 Mitigations overlap with risk 52 and 53 (which are more immediate). Will cancel this risk and track through those items. The Purchasing and Contracts Team, Data Team and the various Business Teams(SME's) have to develop: - Standards/Display format (E.g. Taxonomy, Upper Case/ Lower Case or mixture of both) for the Required and Optional fields on the Service Master - Material/Service Groups - The list of Service masters to be uploaded for Go-Live - Service Master upload tools for Go-Live - A Service Master maintenance process for the Sustainment team
54	Time in design to fully work through integrated process designs (KPMG item June 15)	2018-06-22 9:17	40. Closed	4	2	2	Peachey, Tanya	Treat (or Reduction)	The general topic of CLRA and SCA has been discussed for a long time, and is well known. There have been meetings with CLRA team and Robin Yang, and CLRA team and Leo/Kerian/Anurag. This coordination and collaboration needs to continue into the level of detail that is now available for both projects as they near DEF completion.
59	Material Master MDRS additional activities planned to be finished by Oct 26	2018-10-13 18:58	40. Closed	4	1	4	Ortega cardenas, Mario	Tolerate (or Acceptance)	
62	Demand Management / MRP Consultant is required	2018-10-23 18:35	40. Closed	4	2	2	Brandes, Michael	Treat (or Reduction)	
73	Data team resource plan may be insufficient towards the end of the project risking quality and schedule	2018-12-13 8:26	40. Closed	4	2	2	Brandes, Michael	Tolerate (or Acceptance)	
80	Residual risk - Fall to reclassification of "SAP Personnel Number" to become non private information may resu	2019-03-11 12:54	40. Closed	4	2	2	Setiawan, Ben	Treat (or Reduction)	
82	Inefficient Partner Assignment if System Performance is Poor	2019-03-24 16:22	40. Closed	4	2	2	Barnard, Tys	Treat (or Reduction)	
87	SCA project depends on HR mini master for contractors being loaded through sustainment	2019-04-16 11:42	40. Closed	4	2	2	Setiawan, Ben	Tolerate (or Acceptance)	
111	Planning for business tasks at cutover is behind which may impact quality of cutover	2020-01-06 14:30	40. Closed	4	2	2	Rico, Ivette	Treat (or Reduction)	
36	BW loads taken 10 to 12 hour today. 60% additional load is coming because of SCA	2018-05-10 9:42	40. Closed	3	1	3	Cachero, Wendy	Treat (or Reduction)	
74	No Mass Upload Tool for Updating Material Group on Service Masters	2018-12-14 14:40	40. Closed	3	1	3	Wong, Brian	Tolerate (or Acceptance)	
11	ECC SAP Access to Prep for SAP 101 Demo	2018-01-29 19:07	40. Closed	2	1	2	Trask, Jon	Treat (or Reduction)	
95	Pre go-live training cannot be conducted in the planned weeks	2019-05-29 9:59	40. Closed	2	2	1	Watt, Daniel	Treat (or Reduction)	
16	Scope Risk related to potential increase of Arba use with impact on Unifier and SC Workspace (closed a	2018-02-16 9:06	70. Cancelled	12	4	3	Schellekens, Harold	Terminate (or Avoidance)	
55	Data conversion scope risk related to other BCH projects (Business or IT)	2018-06-27 23:22	70. Cancelled	9	3	3	Praveen, Roch	Treat (or Reduction)	
43	Unrealized Benefits & Procurement Inefficiencies due to Missing Service Master Standards	2018-05-21 23:10	70. Cancelled	6	2	3	Praveen, Roch	Treat (or Reduction)	
56	SCA Project Delays due to CLRA Deliverables	2018-06-30 21:58	70. Cancelled	4	2	2	Schellekens, Harold	Treat (or Reduction)	

BC Hydro Supply Chain Applications Project

Progress Report No. 3

Appendix C

Project Schedule

Supply Chain Applications Project - Project Stages and Major Milestones

Baseline Implementation Phase Plan

IMPLEMENTATION PHASE

- Build
- Test
- Final Prep and go-live
- Schedule Contingency
- Stabilization
- Extended Onboarding

Current Plan

IMPLEMENTATION PHASE

- Build
- Test
- Final Prep and go-live
- Schedule Contingency
- Stabilization
- Extended Onboarding

