

Fred James

Chief Regulatory Officer

Phone: 604-623-4046

Fax: 604-623-4407

bchydroregulatorygroup@bchydro.com

October 30, 2019

Mr. Patrick Wruck
Commission Secretary and Manager
Regulatory Support
British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC V6Z 2N3

Dear Mr. Wruck:

**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. 1
October 2018 to September 2019 (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 October 1, 2018 to September 30, 2019.

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, 2019
Mr. Patrick Wruck
Commission Secretary and Manager
Regulatory Support
British Columbia Utilities Commission
Supply Chain Applications Project (SCA Project)
CONFIDENTIAL Semi-Annual Progress Report No. 1
October 2018 to September 2019 (Report)

For further information, please contact Geoff Higgins at 604-623-4121 or by email at bchydroregulatorygroup@bchydro.com.

Yours sincerely,



Fred James
Chief Regulatory Officer

cu/tl

Enclosure

Copy to: **BCOAPO**
Attention: Leigha Worth
lworth@bcpiac.com

CEC
Attention: Christopher Weafer
Cweafer@owenbird.com

BC Hydro Supply Chain Applications Project

Progress Report No. 1

October 1, 2018 to September 30, 2019

PUBLIC

Table of Contents

1	Background	1
2	Project Status	2
3	Project Scope & Activities	3
3.1	Major Accomplishments and Work Completed	4
3.1.1	Configuration	4
3.1.2	Detailed Design and Writing of Custom Program Code.....	4
3.1.3	Data Migration	5
3.1.4	“Go-live” Planning	5
3.1.5	Testing.....	6
3.1.6	End-User Documentation & Training	6
3.2	Plans for Next Six Months.....	7
3.3	Quality Assurance Advisor’s Monthly Report	8
4	Project Cost.....	8
4.1	Project Cost Summary	8
4.2	Project Contingency Draws.....	14
4.3	Summary of Individual Contracts Exceeding \$3.0 million.....	15
5	Project Benefit Realization Plan	15
6	Project Risks	16
7	Project Schedule	24

List of Tables

Table 1	Project Status Dashboard	2
Table 2	Identified Changes in Activities and Impact on the SCA Project	3
Table 3	Project Expenditure Summary – Forecast and Actual Cost.....	9
Table 4	Identified Changes in Activities and Impact on Scope and Contingency	14
Table 5	Summary of Contracts exceeding \$3.0 million	15
Table 6	Implementation Phase – Risks and Risk Mitigation Summary	18
Table 7	Project Schedule Change Components	25
Table 8	Project Milestones	25

Appendices

- Appendix A Quality Assurance Advisor's Monthly Project as of September 19, 2019
- Appendix B Project Benefit Realization Plan Update
- Appendix C Risk Register
- Appendix D Project Schedule

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 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, BCUC issued Order No. G-158-17 accepting the SCA Project's
16 capital expenditure schedule of \$22.5 million to \$29.7 required to complete work up
17 to the end of the Definition Phase and directed BC Hydro to file a Phase Two
18 Verification Report (**Verification Report**) at the end of the Definition Phase.

19 BC Hydro filed the Verification Report in October 2018, and in April 2019 the BCUC
20 issued Order No. G-78-19 accepting the capital expenditure schedule of
21 \$38.5 million to \$45.4 million to complete the Implementation Phase.

22 BC Hydro was directed to file semi-annual progress reports on the SCA Project. The
23 first progress report is being filed approximately six months from the date Order
24 No. G-78-19 was issued, but will also cover the six months prior to that date.
25 Progress Report No. 1 covers the period from October 1, 2018 to September 30,
26 2019 (the **reporting period**), and reflects the work undertaken in the Implementation
27 Phase.

2 Project Status

As discussed in the Verification Report, BC Hydro’s Board of Directors authorized the SCA Project to proceed with Implementation Phase activities in September 2018. These activities commenced in October 2018 and work continues to date. Prior to April 2019, the SCA Project completed the detailed design and system configuration activities, and began work on the technical solution build (i.e., development of custom programs). From April 2019 to the end of September 2019, work on the following major activities has progressed: technical solution build, data migration, “go-live” planning, system testing, and development of end-user training materials.

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

Table 1 Project Status Dashboard

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

Status as of:	September 30, 2019	Overall:	●
Overall Assessment	● The project continues to progress on budget, on scope, with an improving level of risk, and anticipates delivery of the planned benefits. The planned in-service date for the new SAP based system is now February 18, 2020, which is within the Target and Committed In-Service dates of November 2019 to March 2020 established in the Verification Report. However, some critical path tasks and deliverable elements are delayed, resulting in an amber rating for the schedule dimension and causing the overall amber rating for the project. The Project team is currently assessing the impact of the schedule slippage on the key project milestones, including the current target In-Service date.		●
Scope & Activities	● There have been no material changes to the Project scope since the start of the Implementation Phase. Please refer to Section 3 for more information on the changes to planned Project activities.		
Cost	● The Project’s forecast cost at completion is within the range of the accepted capital expenditure schedule. There have been no approved draws against the project’s \$8.0 million reserve amount. Please refer to section 4 for more information on the Project cost.		
Benefits	● There are no changes in the Project’s planned baselines, metrics, measures, and / or the tracking plan in this reporting period. Please refer to Section 5.		

Status as of:		September 30, 2019	Overall:
Risk	●	While the risk profile of the project continues to improve as development progresses and the number of unknown elements within the solution continues to be reduced, ongoing delays with some activities have resulted in new project delivery risks. These new risks are the reasons for the amber rating for risk. Please refer to Section 6 for an updated assessment of the Project's risks.	●
Schedule	●	The current Target In-Service date is within the Target and Committed In-Service dates of November 2019 to March 2020 established in the Verification Report. In May 2019, the Project Steering Committee authorized a change to the project schedule, establishing a Target In-Service date of February 2020. Overall, the Project has progressed on schedule for key milestones; however, a number of critical path activities are currently progressing behind schedule placing the target in-service date at risk and resulting in the amber rating. 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 planned activities in the next reporting period.

There were a few changes in project activities as outlined in [Table 2](#) below. [Table 2](#) provides a summary of the identified changes in project activities and the impact of those changes. The cost and schedule implications of these changes are also discussed in the Sections [4](#) and [7](#), respectively.

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

Description of Change	Identified Impact
Increased Ariba license fees and implementation services. Negotiated fees exceeded budgeted amount.	Additional cost
Additional BC Hydro IT testing support resources	Additional resources and cost
BC Hydro Project Coordinator role (unplanned)	Additional resources and cost
Funding for overtime worked by salaried BC Hydro staff	Additional resources and cost
System Integrator costs for additional training courses to be developed	Additional resources and cost
Additional BC Hydro (non-System Integrator) costs resulting from the schedule change and additional detailed design work	Schedule change and additional cost

Description of Change	Identified Impact
Additional System Integrator costs resulting from the schedule change and additional detailed design work	Schedule change and additional cost
Additional Quality Assurance Advisor costs resulting from the schedule change	Schedule change and additional cost
Access to Ariba via single sign-on	Additional cost

1 **3.1 Major Accomplishments and Work Completed**

2 The following sections describe the major accomplishments completed during the
 3 current reporting period.

4 **3.1.1 Configuration**

5 System configuration includes making entries and settings in pre-defined SAP
 6 administration tables, which control the operation of the SAP application.

7 Configuration of the SAP system has been completed and is currently being tested
 8 to ensure that the numerous configuration settings effectively support the new
 9 business processes.

10 **3.1.2 Detailed Design and Writing of Custom Program Code**

11 Development of the solution detailed design was completed during this reporting
 12 period. This included the writing, review, and approval of the various functional and
 13 technical specification documents used to detail the design of 135 custom programs
 14 included in the solution.

15 Writing of the custom program code was materially completed this period with 130 of
 16 135 custom programs completed, and the remaining five still in progress. Of the
 17 required 135 custom programs, 36 are modifications to existing programs and 99 are
 18 entirely new custom programs required to support the solution. Examples include
 19 modifications to the existing interfaces between PassPort and SAP, and new mobile
 20 applications to enable warehouse management tasks to be processed on iPhone
 21 and tablet devices.

1 **3.1.3 Data Migration**

2 During the current reporting period, the project completed the development of all 24
3 custom programs required to extract migration data from the legacy systems, to
4 transform the data into the required format for loading, and to load the data into the
5 new SAP system. Also during this period, detailed plans were developed and
6 execution started on data cleansing and enrichment activities for 56 unique data
7 elements. Examples of these activities include: cleansing existing vendor records,
8 capturing additional data to support enhanced quality management processes,
9 classification and enrichment of existing contract information, and cleansing and
10 enriching of inventory management data.

11 **3.1.4 “Go-live” Planning**

12 In May 2019, the project started to perform a series of practice or “mock” data
13 conversion exercises as part of the process to fully detail the cutover plan and to test
14 the conversion exercise. To date, three such mock conversions have been
15 completed with 21 of 24 data conversion items being tested in all three mock
16 conversion exercises, and all data conversion items being tested in at least one
17 mock conversion exercise.

18 In July 2019, and in preparation for moving into the testing stage of the project, the
19 initial detailed cutover plan was developed and then executed to create the project
20 testing environment. The results of this initial execution of the plan led to additional
21 details being added to a refined version of the cutover plan. The cutover plan is in
22 process of being executed a second time as the project prepares a second test
23 environment to be used in the second cycle of system testing. Information gathered
24 from this second conversion exercise will be used to further refine the cutover plan.
25 This process will be repeated for a third time in early December 2019 to create the
26 environment in which user-acceptance testing will be performed. Repeating the
27 process a number of times helps to ensure that the team will be well practiced and
28 able to successfully execute the system cutover during the go-live weekend.

1 **3.1.5 Testing**

2 On July 26, 2019, the Project’s Steering Committee approved the project to move
3 into the testing stage. The first round of formal system testing started on July 29,
4 2019. To date, the team successfully completed over 100 test scripts. The testing
5 process, which included the tracking of defects that are identified through test
6 execution, is managed with a testing tool called “ALM”. As of September 30, 2019,
7 the team had logged over 1,200 system defects. Of these, over 800 had been
8 successfully fixed and roughly 400 remain open. Of the current open defects, 2 are
9 listed as having a critical impact (i.e. they prevent the further execution of testing)
10 and 115 are listed as having a high impact (i.e. they seriously impair the system’s
11 ability to operate). Defects are expected to be identified and addressed through all
12 stages of testing.

13 Testing activities are currently tracking approximately four to six weeks behind
14 schedule.

15 **3.1.6 End-User Documentation & Training**

16 In this reporting period, the detailed planning for the development of the end-user
17 training materials was completed, the team of 10 instructional designers was on-
18 boarded, and the development of training materials was started. The project team
19 identified roughly 80 courses to be delivered to end-users. The courses range from
20 short on-line courses to instructor led “hands on” classroom based courses.

21 Development of the training delivery schedule was also started this period, focusing
22 on the roughly 1,600 employees who will attend classroom training. Initial planning
23 for training delivery logistics was also started this period, including identifying
24 trainers, booking facilities, and planning for required equipment.

25 Training material development activities are currently tracking roughly one month
26 behind schedule.

1 **3.2 Plans for Next Six Months**

2 Work to be completed in the next reporting period includes the following:

- 3 • Completion of system testing, including execution of user-acceptance testing.
- 4 • Completion of the development of end-user training materials, finalization of
5 training delivery plans, and delivery of the initial rounds of end-user training
6 (focusing on training required prior to the system go-live);
- 7 • Completion of data cleansing and enrichment activities;
- 8 • Establish pre-go live baseline measures for tracking the realization of benefits,
9 as identified in Appendix I of the Verification Report;
- 10 • Finalization of cutover planning activities and execution of additional “mock”
11 cutover events in preparation for the go-live weekend; and
- 12 • Execution of the system go-live event.

1 **3.3 Quality Assurance Advisor’s Monthly Report**

2 KPMG remains the Quality Assurance Advisor on the Project and continues to
3 provide reports on the Project’s performance and progress on a monthly basis to the
4 Project’s Steering Committee. The report provides ongoing assessments on the
5 governance structure, financial controls, benefits structure, project schedule and
6 deliverables, and decision making, amongst other key areas.

7 Please see the latest monthly report submitted by KPMG attached as **Appendix A**.

8 **4 Project Cost**

9 **4.1 Project Cost Summary**

10 The actual total cost for the pre-Implementation phase was \$25.5 million. The BCUC
11 accepted the capital expenditure schedule of \$38.5 million to \$45.4 million to
12 complete the Implementation Phase, and the estimated operating cost to complete
13 the Implementation phase is \$7.4 million to \$8.5 million. This results in a total Project
14 Forecast Cost Range of \$71.3 million to \$79.3 million.

15 [Table 3](#) shows the current Project forecast cost and the actuals-to-date. Also
16 included in this section are variance explanations.

Table 3 Project Expenditure Summary – Forecast and Actual Cost

Line #	Description	A	B	C	D	E	F	G	H	I	J	K	L
		Verification Report Cost Estimate			Current Forecast Cost			Forecast Cost Analysis			Actual Cost Analysis		
		CapEx Cost	OpEx Cost	Total Cost	CapEx Cost	OpEx Cost	Total Cost	\$M [F - C]	% [F / C]	Notes	Actual Cost-to-Date \$M	% of Current Forecast [K / I]	% of Verification Report Cost Estimate [K / C]
1	Pre-Implementation Costs												
2	Supply Chain Transformation Blueprint (Early Design Costs)	7.3	0.0	7.3	7.3	0.0	7.3	0.0	100.0%		7.3	100.0%	100.0%
3	Identification Phase Costs	0.0	1.2	1.2	0.0	1.2	1.2	0.0	100.0%		1.2	100.0%	100.0%
4	Definition Phase Costs	15.3	1.6	16.9	15.4	1.5	16.9	0.1	100.3%		16.9	100.0%	100.3%
5	Total Pre-Implementation Phase Cost	22.6	2.8	25.4	22.7	2.7	25.5	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												
18	Contingency (% * Direct Future Costs)												
19	Interest During Construction	2.3	0.0	2.3	1.9	0.0	1.9	-0.3	82.6%	10	1.1	57.2%	48.5%
20	Total Implementation Phase Expected Cost Estimate	38.5	7.4	45.9	38.3	7.4	45.7	0.0	99.5%		28.6	62.6%	62.3%
20	Total Project Expected Cost Estimate	61.1	10.2	71.3	61.1	10.2	71.3	0.0	100%		54.0	75.8%	75.8%

L i n e #	Description	A	B	C	D	E	F	G	H	I	J	K	L
		Verification Report Cost Estimate			Current Forecast Cost			Forecast Cost Analysis			Actual Cost Analysis		
		CapEx Cost	OpEx Cost	Total Cost	CapEx Cost	OpEx Cost	Total Cost	\$M [F - C]	% [F / C]	Notes	Actual Cost-to-Date \$M	% of Current Forecast [K / I]	% of Verification Report Cost Estimate [K / C]
21	Project Reserve - Reserve For Known Risks	1.3	0.0	1.3	1.3	0.0	1.3	0.0	100%		0.0	0.0%	0.0%
22	Project Reserve - Incremental Contingency	5.4	1.1	6.5	5.4	1.1	6.5	0.0	100%		0.0	0.0%	0.0%
23	Incremental Interest During Construction on project reserve	0.2	0.0	0.2	0.2	0.0	0.2	0.0	100%		0.0	0.0%	0.0%
24	Total Project Reserve	6.9	1.1	8.0	6.9	1.1	8.0	0.0	100%	11	0.0	0.0%	0.0%
25	Total Project Authorized Cost Estimate	68.0	11.3	79.3	68.0	11.3	79.3	0.0	100%		54.0	68.1%	68.1%

Numbers may not add up due to rounding

1 Notes refer to notes 1 to 11 in Column I of [Table 3](#):

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

- 3 1. The actual costs incurred in completing the pre-Implementation phase activities
4 were \$100,000 higher than reported in the Verification Report. This was
5 primarily due to an unplanned \$250,000 for BC Hydro employee's overtime pay
6 for additional work performed during the Definition Phase. This unplanned
7 amount was partially offset by several tasks being completed under budget.

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

- 9 2. [REDACTED]
10 [REDACTED]
11 [REDACTED]
12 [REDACTED]
13 [REDACTED]
14 [REDACTED]
15 [REDACTED]
16 [REDACTED]
17 [REDACTED]
18 [REDACTED]
- 19 3. [REDACTED]
20 [REDACTED]
21 [REDACTED]
22 [REDACTED]
23 [REDACTED]
- 24 4. [REDACTED]
25 [REDACTED]

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

2 5. [REDACTED]
3 [REDACTED]
4 [REDACTED]
5 [REDACTED]
6 [REDACTED]
7 [REDACTED]
8 [REDACTED].

9 6. [REDACTED]
10 [REDACTED]
11 [REDACTED]
12 [REDACTED]
13 [REDACTED]
14 [REDACTED]
15 [REDACTED]
16 [REDACTED].

17 7. [REDACTED]
18 [REDACTED]
19 [REDACTED]
20 [REDACTED]
21 [REDACTED]
22 [REDACTED].

23 **Changes in Total Implementation Phase Costs & Indirect Costs:**

24 8. [REDACTED]
25 [REDACTED]
26 [REDACTED]

-
- 1 9. The Implementation Phase contingency amount has been reduced by [REDACTED]
2 [REDACTED] of operating cost contingency and [REDACTED] of capital cost
3 contingency) as a result of the contingency draws approved by the project
4 Steering Committee and outlined in [Table 4](#) below. Of the original \$5.7 million in
5 contingency, the project has [REDACTED] of contingency remaining. This
6 represents approximately [REDACTED] per cent of the remaining future direct costs on
7 the project.
- 8 10. The forecast Interest during Construction (IDC) for the Implementation Phase
9 has decreased by \$300,000 due to the difference in the method used to
10 forecast IDC and the more detailed daily calculation used to assign actual IDC.
- 11 11. The total Project Reserve amount remains unchanged from the Verification
12 Report.

4.2 Project Contingency Draws

A summary of the changes to Project activities and the identified impacts are outlined in Section 3. Some of the changes in Project activities had a cost impact due to an extension of the schedule or the need for more than the planned amount of resource hours. Project contingency draws are approved by the Project Steering Committee, and none of the approved contingency draws are as a result of changes in the project scope.

The extension to the Project schedule resulted in three draws on contingency of ██████████ to cover the additional costs associated with the increased resource time as follows: to cover the additional BC Hydro costs, to cover the additional System Integrator’s costs, and to cover the additional Quality Assurance Advisors’ costs. Please see section 7 for a discussion on the extension to the Project schedule. The balance of ██████████ was generally due to additional resources being required to complete the planned activities.

Table 4 Identified Changes in Activities and Impact on Scope and Contingency

Description of Change	Identified Impact		
	Impact	Capital Contingency (\$'000)	Operating Contingency (\$'000)
Increased Ariba license fees and implementation services. Negotiated fees exceeded budgeted amount.	Additional cost	██████	
Additional BC Hydro IT testing support resources	Additional resources	██████	
BC Hydro Project Coordinator role (unplanned)	Additional resource	██████	
Funding for overtime pay for BC Hydro employees for additional work in the Definition and Implementation phases	Additional resource time	██████	
System Integrator costs for additional training courses to be developed	Additional resources		██████
Additional BC Hydro (non-System Integrator) costs resulting from the schedule change and additional detail design work	Schedule change and additional cost	██████	██████

Description of Change	Identified Impact		
	Impact	Capital Contingency (\$'000)	Operating Contingency (\$'000)
Additional System Integrator costs resulting from the schedule change and additional detail design work	Schedule change and additional cost	■	■
Additional Quality Assurance Advisor costs resulting from schedule change	Schedule change and additional cost	■	
Access to Ariba via single sign-on	Additional cost	■	
	Total draws:	■	■

4.3 Summary of Individual Contracts Exceeding \$3.0 million

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

Table 5 Summary of Contracts exceeding \$3.0 million

No.	Supplier and Scope of Supply		Initial Contract Value (\$ million)	Forecast Contract Cost (\$ million)	Actuals to Sept 30, 2019 (\$ million)
1	PwC	System Integrator Costs – Design Stage	■ ¹	n/a	■ ²
2	PwC	System Integrator Costs – Implementation Phase	■ ³	■	■ ⁴

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 accrued amount.

5 Project Benefit Realization Plan

BC Hydro is finalizing the baselines and metrics and measures in the Implementation Phase by iteratively assessing business impacts. There are no changes in planned baselines, metrics, measures, and / or the tracking plan in this reporting period. The Benefit Tracking Sheets filed as Appendix I-1 with the

1 Verification Report reflects the most up-to-date information on the expected benefits
2 and the tracking plan.

3 **6 Project Risks**

4 In this section, BC Hydro provides updated mitigation plans and status, and updates
5 on the probability and impact assessments for risks as identified in the Phase Two
6 Verification Report in [Table 6](#). Project risks continue to be managed through the risk
7 management process, and identification of new risks is supported by the ongoing
8 quality assurance assessments provided each month by the Project's Quality
9 Assurance Advisor. Please refer to **Appendix C** for the Project Risk Register

10 Our current assessment of the overall Project risk is lower than at the beginning of
11 the Implementation Phase. This is due to the progression in Project activities, the
12 decrease in the number of unknown elements, and the fact that the impact of the
13 solution is better defined. However, there are ongoing delays with some activities
14 that have resulted in new project delivery risks identified in [Table 6](#).

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

- 16 1. **Business risk:** These risks have the potential to impact BC Hydro's ability to
17 realize business benefits from the project. They include: how the extent of
18 change required to current business processes impacts BC Hydro's ability to
19 realize the benefits upon which the project is justified (the supporting of the
20 Supply Chain Business Requirements, the closing of the capability gaps and
21 the achievement of monetized benefits); and the risk the business experiences
22 a reduction in productivity during the transition period from the existing to new
23 supply chain;
- 24 2. **Technology risk:** The technology risk assessment considers the maturity of
25 the technologies used to deliver the technical solution. Overall, the SAP supply
26 chain IT configuration that BC Hydro plans to implement is very mature and

- 1 considered low risk from both a probability and consequence perspective.
2 However, there are a few elements included in the project design which are
3 less mature and for which limited deployment experience exists at BC Hydro;
- 4 3. **Project Delivery risk:** The project delivery risk assessment considers the key
5 project delivery related risks that have been identified as having the potential to
6 impact BC Hydro's ability to deliver the project on time, on budget and with
7 quality; and
- 8 4. **Readiness risk:** The readiness risk assessment considers the key risks related
9 to organizational readiness that has the potential to impact BC Hydro's ability to
10 successfully undertake the project.

Table 6 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. 1	
					Mitigation Status	Probability and Impact	Mitigation Status	Probability and Impact
1	Business	Active, Updated	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>	<p>In Progress</p> <p>In Progress</p> <p>In Progress</p>	<p>Medium probability; medium impact.</p>	<p>In Progress</p> <p>In Progress</p> <p>In Progress</p>	<p>Medium probability; medium impact.</p>
2	Business	Active, Updated	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.</p> <p>Previous plans regarding the extended stabilization period remain unchanged.</p>	<p>In Progress</p> <p>Planned</p>	<p>High probability; low impact.</p>	<p>In Progress</p> <p>Planned</p>	<p>High probability; low impact.</p>
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. 1	
					Mitigation Status	Probability and Impact	Mitigation Status	Probability and Impact
4	Technology	Active, 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 most likely not required. Will continue to monitor through stabilization to confirm this is the case.	Monitoring	Low probability: Impact estimated at \$0.3 million.	Monitoring	Very Low probability: Impact estimated at \$0.3 million.
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. 1	
					Mitigation Status	Probability and Impact	Mitigation Status	Probability and Impact
7	Project Delivery	Active, 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.	Some residual risk remains that off-shore development will prove to be ineffective or produce low quality outputs. Reserve of \$1 million included in Implementation Phase estimate to cover cost of completing additional development on-shore.	Monitoring	Low probability; impact estimated at \$1 million.	Monitoring	Very Low probability; impact estimated at \$1 million.
8	Project Delivery	Inactive	Risk of unsuccessful System Integrator Request for Proposal					
9	Project Delivery	Active, Updated	Risk of weak project governance	KPMG continues to be engaged and working closely with the project team. 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	KPMG continues to be engaged and working closely with the project team. BC Hydro's project governance processes continues to work effectively	Monitoring	Medium probability; high impact	Monitoring	High probability; medium impact

No.	Risk Category	Current Risk Status	Risk Event / Threats	Updated Mitigation Plans & Mitigation Assessment	Verification Report		Report No. 1	
					Mitigation Status	Probability and Impact	Mitigation Status	Probability and Impact
				The probability of this risk has increased as reflected by having to repeatedly re-plan work due to schedule slippage. The impact of the risk is reduced from high to medium as the project has progressed further along through implementation phase.				
11	Project Delivery	Active, Updated	Risk of lack of clear Supply Chain Business Requirements	Business requirements further detailed through early Implementation Phase detailed design activities and recorded in realization deliverables Updated Functional and Non-functional Requirements List and Requirements Traceability Matrix.	Monitoring	Low probability: Medium impact	Monitoring	Low probability: Medium impact
12	Project Delivery	Active, Updated	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
13	Project Delivery	Active Updated	Risk of unforeseen PassPort functionality issues	BC Hydro PassPort support team fully engaged in project activities, including testing of new solutions and assessing impacts on remaining PassPort functions.	Monitoring	Low probability, high impact	Monitoring	Low probability, medium impact

No.	Risk Category	Current Risk Status	Risk Event / Threats	Updated Mitigation Plans & Mitigation Assessment	Verification Report		Report No. 1	
					Mitigation Status	Probability and Impact	Mitigation Status	Probability and Impact
14	Project Delivery	Active, Updated	Risk of poor quality of delivery by SI	The probability of this risk has increased, as the project has not yet met the quality threshold to exit the first formal test cycle. As project progresses, the impact of this risk is reduced as BC Hydro's resources are more knowledgeable and less dependent on the System Integrator's expertise.	In Progress	Medium probability, high impact	Monitoring	High probability, medium impact
15	Project Delivery	Active, Updated	Risk of low data quality and or data not being ready according to Project Schedule	Detailed data clean-up and enrichment plans development and being executed.	In Progress	Medium Probability, medium impact	In Progress	Low probability, medium impact
16	Readiness	Active, Updated	Risk of lack of availability of BC Hydro non-technology resources	Project continues to operate effectively with planned resource levels.	In Progress	Low probability: high impact	In Progress	Low probability: high 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.	In Progress	Low probability, medium impact	In Progress	Low probability, medium impact
18	Project Delivery	New	Risk that reporting is not developed in time for initially planned testing dates	Build into Project schedule plans for ITC2 execution to align with report delivery. Manage scope closely through change control process to ensure build phase does not overrun.			In Progress In Progress	High probability, medium impact

No.	Risk Category	Current Risk Status	Risk Event / Threats	Updated Mitigation Plans & Mitigation Assessment	Verification Report		Report No. 1	
					Mitigation Status	Probability and Impact	Mitigation Status	Probability and Impact
19	Project Delivery	New	Risk that training materials are not developed in time for initially planned training delivery dates	<p>Monitor the effectiveness of updated plans and corrective actions presented to the PMO.</p> <p>Assess options to modify training delivery schedule to allow additional time to complete material development by delaying start of initial pre-go live training.</p>			In Progress	High probability, medium 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. The current Target In-Service date for the Project
4 is now in February 2020. This date falls before the Committed In-Service date
5 identified in the Verification Report.

6 In May 2019, the Project Steering Committee approved an update to the project
7 schedule, setting the Target In-Service date to February 2020. This extended the
8 system build and testing schedule by 13 weeks from the previous Target In-Service
9 date in November 2019. The decision to place the Project into service in February
10 2020 was driven by a number of considerations, including:

- 11 • Roughly six weeks of schedule slippage on some critical path activities early in
12 the Implementation phase such as the completion of detailed design and the
13 development of custom program code;
- 14 • Required calendar year-end activities to apply mandated tax and payroll
15 updates to the current SAP production system which restricts the SCA Project
16 from being placed into service between late November and early January;
- 17 • Allowing time in late December–early January period for the project team to
18 have a break prior to the expected heavy workload of the go-live and early
19 stabilization period early in the following year; and
- 20 • Providing time to allow for the “hands on” training on the new system to be
21 delivered in January 2020, thereby enabling the training to be delivered as
22 close to the go-live event as possible.

23 The 13 week overall extension is comprised of the components outlined in [Table 7](#)
24 below:

1 **Table 7 Project Schedule Change Components**

Item	Project Stage	Description	Extension
1	Realization	Additional time to complete build activities prior to the start of integration testing. The delay is a result of the additional work and review required to complete and close out the detailed design decisions, functional specifications, and delays in the planned completion of various technical items (i.e. programming).	6 weeks
2	Realization	Additional time between integration test cycles to allow for additional time for defect resolution and preparation of test environments as based on a revised evaluation of project risks.	2 weeks
3	Final Preparation	Non-working time through the Christmas Holiday period.	2 weeks
4	Final Preparation	Additional time per BC Hydro's request to not have user-acceptance-testing (UAT) activities overlap with the delivery of end-user training, and additional UAT time and pre-go live training time to allow proper review by the BC Hydro business groups as per BC Hydro standards and reduce overall project risk.	3 weeks
Total			13 weeks

2 The extension to the project schedule resulted in draws on contingency to cover the
 3 additional costs associated with the increased resource time. Refer to Section [4.2](#) for
 4 further information on the resulting contingency draws.

5 [Table 8](#) below provides an update on the key milestones for the Project as of May
 6 2019 and the status of these milestones as of September 2019. Please refer to
 7 **Appendix D** for the latest approved Project schedule.

8 **Table 8 Project Milestones**

No.	Stage	Planned Date	Actual or Forecast Date	Status
1	BC Hydro releases Implementation Phase work to System Integrator and Quality Assurance Advisor	October 2018	October 2018	Completed as scheduled
2	Implementation - Build Solution	October 2018 to November 2019	October 2019 to February 2020	Expected late completion
3	Target In-Service Date	November 2019	February 2020	Target in-service date is at risk of further delay.
4	Committed In-Service Date	March 2020	March 2020	No change

No.	Stage	Planned Date	Actual or Forecast Date	Status
5	Implementation – Stabilization	March 2020 to Mid July 2020	March 2020 to Mid July 2020	Expected on-time Completion
6	Implementation – Onboarding	March 2020 to March 2021	March 2020 to March 2021	Expected on-time Completion
7	Project Completion	March 2021	March 2021	Expected on-time Completion

1 Since the Project schedule was revised in May 2019, several project activities have
 2 progressed behind schedule, including the development of custom programs,
 3 system testing, and the development of end-user training materials. The Project is
 4 currently four to six weeks behind schedule due to delays in the completion of the
 5 first cycle of integration testing and development of training materials. This delay
 6 may result in another revision to the Target In-Service date as a result of impacts to
 7 downstream activities. The project team is currently assessing techniques to
 8 possibly recover the schedule time lost due to the delay. In addition, the project team
 9 is also reviewing the impact of placing the system into service during the busy fiscal
 10 year-end period, which could result in a further delay. A forecast of the In-Service
 11 date is expected in late November 2019, and will be provided in the next progress
 12 report to be filed in April 2020.

BC Hydro Supply Chain Applications Project

Progress Report No. 1

Appendix A

**Quality Assurance Advisor's Monthly Project
as of September 19, 2019**

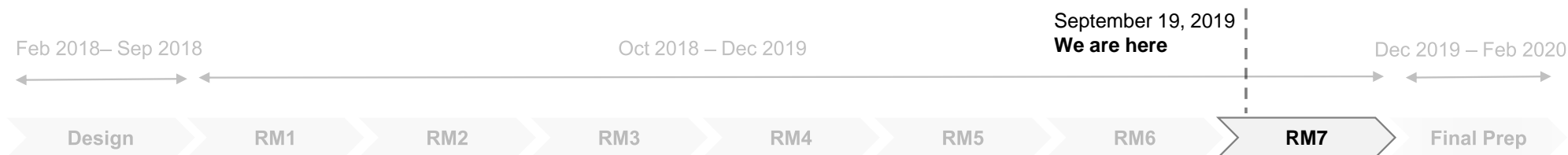


Monthly Project Update

Prepared for BC Hydro SCA Steering Committee

—
September 19, 2019

Activities Completed December August 22 – September 19 2019



List of documents reviewed		Interviews conducted
<ul style="list-style-type: none"> Project Schedule (August 29th & August 9th versions) Subordinate project plans 2.17.01 RICEFWU Tracker_Realization Reporting development tracker HPQC ALM environment (string test progress, integrated test scenario progress, defect instances and resolution progress) ITC1 testing kickoff document Updated ITC1 test scripts Testing status report graphs 	<ul style="list-style-type: none"> Data prep list Data conversion issue list SCA_CourseDevelopmentTracker Training Critical Path SCA Design Training Deliverables Weekly Status Report_ALL_20190903 Weekly Status Report_ALL_20190909 Weekly Status Report_ALL_20190916 	<ul style="list-style-type: none"> Project Directors – Zaheer Shivji, Hugh Smith PMO – Steven Purvis, Ivette Rico Solution Integration – Maryna Korsei Project Integration – Fred Jongeneel, Cory Lanovaz Work Management Integration – Wayne Martell, Victor Galina Purchasing & Contracts – Brian Wong, Oliver Garsault Inventory Management & Quality – Darren Gebert, Mario Ortega Data Management – Tim Kikkert, Greg Turnbull Change Management – Daniel Watt Technology – Sandeep Paul, Michel Maurivard Reporting – Wendy Cachero, Diego Mendez, Kent Jarvie Testing – Ross Hunter Training – Souli Vohradsky, Sarah Low, Daniel Watt



GETT Assessment Dimensions for This Period

Below highlights the assessment dimension for August 22, 2019 to September 19, 2019 and the associated findings.

Project Delivery				Functional Dimensions		
Project governance	Project management	Change management	Performance management	People	Process	Technology
Strategic alignment	Adequate Scope and change control	Change approach and strategy	Business case	Adequate Training and development	Target operating model	Enterprise architecture
Leadership	Partial Project plan, deliverables, and resourcing	Case for change	Independent assurance	Skills and competencies	Adequate Process design	Adequate Data conversion / migration
Delivery principles and policies	Vendor management (SI Selection Process Review)	Adequate Change leadership	Incentives to deliver	People strategy and design	Adequate Requirements management	Adequate Interfaces and legacy systems
Accountability and responsibility	Cost management (financial model)	Change capability	Benefit management	Role design	Partial Data management and reporting	Adequate System design
Structure and capability	Adequate Risks, assumptions, issues and dependencies management	Adequate Engagement and communication	KPIs / metrics	Organizational design	Business process controls and BCP	Partial System build
Adequate Monitoring and controls	Quality standards management	Change impact assessment	Performance improvement	Culture and behaviors	Partial Functional testing	Adequate Non-functional testing
Adequate Portfolio management	Lifecycle management	Adequate Business readiness	High performing culture	People performance management	Adequate 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 by the Project Team
 - Inadequate Project elements are not addressed and mitigation actions have not been identified
 - Out of Scope Project elements that are out of scope for this assessment period
- Bolded outline denotes assessment dimensions detailed in executive summary.



© 2017 KPMG LLP, a Canadian limited liability partnership and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved. The KPMG name and logo are registered trademarks or trademarks of KPMG International.

Executive summary

For this period the assessment identified the following key observations and recommendations.



Functional Testing

Functional Testing

ITC 1:

Based on KPMG's assessment, the risk for functional testing has increased. ITC 1 is currently behind schedule. As of Sep 17, HP ALM indicates that for the Integrated Scenarios, ~72% of test scripts under integrated scenarios have been executed, ~ 52% of test scripts have been executed and passed.

KPMG observed that the project team had challenges executing against the test plan. Several key assumptions used for the testing plan did not hold true:

- Development objects: A number of RICFEWU objects were not completed and available for testing at the original planned date. As of the final week of ITC 1 (Sep 9), the RICFEWU tracker indicated that 14 objects had not yet passed FUT: 7 ARIBA objects, 5 non-ARIBA objects which had been planned for promotion during ITC 1, and 2 other non-ARIBA objects. As of Sep 16, the Weekly Status report indicates that 9 objects have not yet passed FUT (ARIBA and non-ARIBA).
- Script detail: Test scripts were not sufficiently detailed and required further re-work before tests could be executed.
- Unclear data dependencies: Data dependencies for running test scripts were unclear, and as a result in some cases data was not staged and ready for testing.
- Integrated scenarios: For some integration scenarios, entry and exit requirements for string tests between streams did not line up, which blocked testing for the scenario and required additional work to revise the test scripts.

ITC 2

- Resource capacity KPMG is concerned that the delay for ITC 1 could impact the completeness for ITC 2 testing, as the project team will need to simultaneously close ITC 1 and prepare for ITC 2.
- Development completeness KPMG is also concerned that as FUT might not be completed for some reporting and ARIBA objects in advance of ITC 2, defects from these two objects could block testing to a greater degree than anticipated and create further schedule risk.

Executive summary – cont'd

For this period the assessment identified the following key observations and recommendations.



Project Management

Project plan, deliverables and resourcing

Schedule

Based on KPMG's observations, schedule risk is increasing. ITC 1 consumed significantly more time from business resources than was estimated, which has created workload balancing issues resulting in bottlenecks. Stream leads have indicated that business resources have reduced capacity to support other activities on the critical path including communication and engagement, training material development and report validation.

KPMG is concerned that this schedule risk could have an impact on completing business readiness activities.

Recommendation

KPMG recommends that the project:

1. Where required, identify dependencies between deliverables to sequence completion dates and identify deliverable requirements;
2. Validate that the assumptions used to identify resource requirements, activity duration and planned completion dates continue to be appropriate; and
3. Identify and assess contingency scenarios if effort and duration requirements are greater than expected compared to the base case. Develop recovery plans if required.

The SI PMO has indicated that the project is in the process of re-assessing effort requirements for key resources and will adjust the project plan accordingly to better balance workload and reduce bottlenecks.

Executive summary – cont'd

For this period the assessment identified the following key observations and recommendations.



Data Management & Reporting

Reporting

Development schedule (Aug 22nd)

- Progress against plan The reporting dimension continues to indicate as yellow due to schedule pressure. Progress for completing the reporting functional specification is tracking behind plan. The reporting team has indicated that this is the result of the complexity of reporting requirements and unforeseen resource availability challenges.
- As the functional specifications have been written to meet “fit to proceed” criteria, KPMG is concerned that there is insufficient time until ITC 2 begins to iterate the reports to fully meet business requirements and allow for the complete planned scope of testing to take place for reports.

Development schedule (Sep 19th)

- Progress against plan Based on KPMG’s observation, progress for reporting continues to track behind plan. The reporting team indicated that ~6 objects (reports and dashboards) will not be fully completed in time for the start of ITC 2.
- Validation: As BCH business resources were largely dedicated to supporting the execution of ITC 1, KPMG is concerned that there was insufficient time for the business to validate the reports against business requirements. As a result, more effort could be required during ITC 2 than anticipated to address reporting defects.
- Data dependencies: At this time, based on KPMG’s observations the data requirements necessary to validate and test reporting effectiveness have not yet been explicitly defined. Additional effort will be required to stage data to allow for testing to take place.


Recommendations

- Test approach: KPMG recommends the project incorporate testing for reporting into the integrated scenarios. This will help make sure that reporting dependencies required to support business processes are validated as part of the test cycle.
- Data dependencies KPMG recommends that that project team complete analysis to identify data requirements necessary to validate reporting and formally assign members on the project team to make sure this data is staged to allow for testing to take place.




Appendix A

Key Findings

Key Findings

GETT Dimension		Assessment Area	Trend	Expectation	Findings	Follow Up
Project Management	Project Plan, Deliverables, Resourcing	Project Plan and Resource Plan		<ul style="list-style-type: none"> Project and resource plans are responsive to project changes (e.g. design decisions affecting project deliverables, dependencies, effort requirements, etc.) and feedback from Project Team. The updated project plan reflects the findings of the SCA team and integrates lessons learned regarding timing, effort and resource requirements; areas of the project experiencing challenges are outlined to a greater level of detail to provide clarity and direction to team members. 	<i>Please refer to executive summary section for full details.</i>	<i>Please refer to executive summary section for full details.</i>

Key Findings – Cont’d

GETT Dimension	Assessment Area	Trend	Expectation	Findings	Follow Up
Change Management	Change Leadership		<ul style="list-style-type: none"> Roles and responsibilities have been identified for Change Leaders. The Engagement and Communication Plan is suitably detailed (e.g. plan identifies: communication channels, detailed activities, roles and responsibilities, target completion dates, and progress tracking). Progress against the Engagement and Communication Plan is tracked and documented consistently. An approach has been identified to assess effectiveness of communication campaigns. 	<p><u>BAR</u></p> <ul style="list-style-type: none"> Based on KPMG’s observations, the Change Team is continuing to address feedback captured during BAR 1 and are communicating outcomes to the business through various channels (e.g. emails, Hydroweb) BAR 2 logistics have been arranged and invites distributed. The Change Team is finalizing the agenda, content and deliverables. 	<ul style="list-style-type: none"> KPMG will continue to monitor the outcomes of BAR 1 and development of BAR 2 materials.
	Engagement & Communication				
	Business Readiness	Business Transition Plan		<ul style="list-style-type: none"> Project has identified an approach to develop a transition plan which will address go-live, and post go-live; business, and technical, requirements, and dependencies by stream. 	<ul style="list-style-type: none"> The project has completed on-boarding the new BTP lead. The Change Team has indicated that with the new leadership and support from the Business Strategy Advisor, activity execution and progress has consistently improved. On-boarding has begun for Transition Point People and transition packages have been prepared to varying levels of detail depending on the impact to each TPP’s KBU.

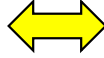


Key Findings – Cont’d



GETT Dimension	Assessment Area	Trend	Expectation	Findings	Follow Up
People	Training & Development	↔	<ul style="list-style-type: none"> Training plans and trackers are kept up to date and are leveraged as a source of truth for progress and upcoming activities. Course outlines are being developed with input from various stakeholders (BSL's, KBU leads, etc.) and Courses are being developed based on outlines and cover both technical and business training requirements. 	<ul style="list-style-type: none"> The Training Team has communicated that course development has not progressed according to plan, citing two main reasons: <ol style="list-style-type: none"> Constraints on business resourced due to ITC 1 and custom development priorities Delayed completion of development reference material (i.e. PDD section 3 documents) Based on KPMG's observations, there is an emerging risk that training will fall behind schedule as the stated factors continue to remain a challenge for the project. Business training resources are being identified and actively on-boarded; the Training Team have indicated there is strong and positive engagement from the business. 	<ul style="list-style-type: none"> KPMG will continue to observe the development of training materials and monitor the risk status of the stream.
	Organizational Design	Organization Alignment	↔	<ul style="list-style-type: none"> Plans have been created to identify changes in role descriptions and employees impacted by the SCA Project. 	<ul style="list-style-type: none"> The Change Management Lead is continuing to work with the HR department to finalize the two new roles being created.



Key Findings – Cont’d

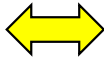
GETT Dimension		Assessment Area	Trend	Expectation	Findings	Follow Up
Process	Data Management & Reporting	Reporting		<ul style="list-style-type: none"> Reporting requirements have been identified and consistently documented. Disposition for reporting requirements have been identified. Requirements needing custom development have been identified and planned for. Progress is monitored and tracked in a consistent and timely manner. Development progresses on schedule 	<i>Please refer to executive summary section for full details.</i>	<i>Please refer to executive summary section for full details.</i>

Key Findings – Cont’d


GETT Dimension		Assessment Area	Trend	Expectation	Findings	Follow Up
Process	Security	Security Plan		<ul style="list-style-type: none"> The security approach considers access requirements for Data, System Transactions, and Reporting. Progress is tracked for configuring and testing solution to meet security requirements. Security profiles have completed unit testing and fully loaded into environment for ITC 2. 	<ul style="list-style-type: none"> Security unit tests have been executed independently in ITC 1, but the PMO have indicated they will be integrated with process scripts in ITC 2 for full scenario testing. 	<ul style="list-style-type: none"> KPMG will continue to monitor progress with security document development and unit testing.
Technology	Data Conversion / Migration	Data Requirements and Quality Assessment		<ul style="list-style-type: none"> Data requirements have been suitably documented including: data object description, scope inclusion, criticality for go-live, source system, target system, and quality. A suitable plan has been developed for data conversion, enrichment, and cleansing and is updated regularly. Master data governance processes have been planned for based on requirements identified. 	<p><u>ITC 1</u></p> <ul style="list-style-type: none"> Due to the development delays with MDG development, the Data Team has indicated that the full MDG load will likely extend beyond the scoped ITC 1 end date. <p><u>ITC 2</u></p> <ul style="list-style-type: none"> The Data Team has indicated that a the draft ITC 2 load plan will allow for ITC 1 testing progression at the same time as ITC 2 prep activities in order to mitigate schedule impacts. Data prep for ITC 2 objects is ongoing and progressing according to plan. Based on KPMG’s observations, data specific entry criteria will be met by the scoped ITC 2 start date (100% of master data, 80% transactional data). 	<ul style="list-style-type: none"> KPMG will continue to monitor progress against data prep activities for ITC 2



Key Findings – Cont’d

GETT Dimension		Assessment Area	Trend	Expectation	Findings	Follow Up
Technology	System Build	Custom Development		<ul style="list-style-type: none"> • Custom development follows a consistent process for sequencing and prioritizing activities. • Progress is monitored and tracked in a consistent and timely manner. • Development progresses on schedule. 	<p><u>Schedule Impacts</u></p> <ul style="list-style-type: none"> • Based on KPMG’s observations, delayed completion of custom development and FUT has blocked string test and integrated test scenario execution in many cases. The Technology Team and PMO have communicated that all lagging development objects are being tracked and mitigation strategies are being defined to limit further schedule impact. <p><u>Development Quality</u></p> <ul style="list-style-type: none"> • Based on KPMG’s observations, although considerable improvement has been made, offshore development quality continues to cause challenges for the Project. • The Technology Team raised a potential risk around the consistent updating of Technical Specification Documents following the resolution of defects; a reconciliation process will likely be required by the Project to ensure all TSDs are up to date. 	<ul style="list-style-type: none"> • KPMG will continue to monitor development and FUT progress. • KPMG will follow-up with the Technology Team during the next assessment period to discuss any updates with the internal review of development quality.

Key Findings – Cont’d

GETT Dimension		Assessment Area	Trend	Expectation	Findings	Follow Up
Technology	Functional Testing	Detailed Test Plan		<ul style="list-style-type: none"> A consistent process is followed to track test outcomes, manage defects, and assess solution progress. Defects are triaged, escalated and resolved in-line with the testing plan and any existing BC Hydro testing and defect management strategies. The testing team and work stream leads have identified a suitable level of detail for test scripts. 	<p><i>Please refer to executive summary section for full details.</i></p>	<p><i>Please refer to executive summary section for full details.</i></p>
	Non-Functional testing					

Appendix B

August – September 2019 Meeting Agendas

Meeting Agendas

Meeting`	Date	Attendees	Topics
Project Directors	Sept 13	Zaheer Shivji, Hugh Smith	Key messages from stream meetings, Project risk rating adjustments
Project Management Office	Sept 12	Steven Purvis, Ivette Rico	Schedule risks, project progress updates, ITC1 progress, development objects, reporting functional specifications and development effort,
Project Integration Team Lead	Sept 16	Fred Jongeneel	PDDs, string and integrated testing, BAR, customer development, security testing
Purchasing & Contracts Team Leads	Sept 10	Brian Wong, Olivier Garsault	PDDs, string and integrated testing, BAR, customer development, security testing
Work Management Team Leads	Sept 11	Wayne Martell, Victor Galina	PDDs, string and integrated testing, BAR, customer development, security testing
Inventory Management & Quality Team Lead and support	Sept 10	Darren Gebert , Mario Ortega	PDDs, string and integrated testing, BAR, customer development, security testing
Data Management Team Leads	Sept 11	Greg Turnbull, Tim Kikkert	Data prep and conversion progress, testing environments, MDG development and FUT
Technology Team Leads	Sept 11	Sandeep Paul, Michel Maurivard	Technical spec development, defect management and risks, offshore team capacity, testing environments
Reporting Team Leads	Sept 16	Kent Jarvie, Wendy Cachero, Diego Mendez	Project plan, functional spec development, development efforts, technical design documents, testing approach, backend development
Change Management Team Lead	Sept 13	Daniel Watt	BAR debrief, training, HR role assessment
Solution Integration Leads	Sept 11	Maryna Korsei	ITC1, development objects, reporting functional tests, defect management, PDDs, security documents



Meeting Agendas

Meeting	Date	Attendees	Topics
Testing Lead	Sept 12	Ross Hunter	Integrated testing execution and test status, HPQC ALM test environment and progress reports, defect management
Training Leads	Sept 10	Souli Vohradsky, Sarah Low, Daniel Watt	Training outline and course development progress, Instructional designer on-boarding, schedule and deliverables



Appendix C

Planned Assessment Activities

Planned Assessment Activities for Next Period

The planned quality assurance assessment for the period of September 19th to October 17th will include the following items. This list is not meant to be exhaustive or comprehensive .

Week of	Activities
September 30	<ul style="list-style-type: none"> Review progress in ITC 1 completion, PDD completion, reporting front end development, ITC 1 exit and ITC 2 entry criteria compliance, and training course development
October 7	<ul style="list-style-type: none"> Interview Key Stakeholders (Work-stream Leads, Functional Leads, PMO, Project Directors) Review progress of ITC 1 completion, ITC 2 data prep and mock loads, reporting functional specifications, development of training materials, and general project schedule progress
October 10	<ul style="list-style-type: none"> Prepare Project Update to the Steering Committee





kpmg.ca



BC Hydro Supply Chain Applications Project

Progress Report No. 1

Appendix B

Project Benefit Realization Plan Update

There are no changes in planned baselines, metrics, measures, and / or the tracking plan in this reporting period.

BC Hydro Supply Chain Applications Project

Progress Report No. 1

Appendix C

Risk Register

ID	Title	Created	Current Status	Risk Score	Impact	Likelihood	Risk Owner	Treatment Strategy	Risk Response/Mitigation
97	Reporting Timeline	2019-05-29	30. Mitigation Strategy Defined	12	3	4	Hunter, Ross	Treat (or Reduction)	Build into Project schedule plans for ITC2 execution to align with report delivery. Manage scope closely through change control process to ensure build phase does not overrun.
105	Training materials not developed in time for initially planned training delivery dates	2019-09-25	30. Mitigation Strategy Defined	12	3	4	Hunter, Ross	Treat (or Reduction)	Updated plan and corrective actions presented to PMO Oct 1, 2019. Will continue to monitor effectiveness of corrections. Decision timing on late November 2019 to fully assess impact of delay and corrective actions. Assessing options to modify training delivery schedule to allow additional time to complete material development by delaying start of initial pre-golive training.
63	Capacity of Business Solution Leads	2018-10-25	30. Mitigation Strategy Defined	8	2	4	Shivji, Zaheer	Treat (or Reduction)	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. Change Advisors have been assigned to each workstream to establish well planned focused activities to maximize BSL impact. 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
20	Residual risk to "turn off" supply chain functions in PassPort.	2018-02-20	30. Mitigation Strategy Defined	6	2	3	Peachey, Tanya	Treat (or Reduction)	Regression test 1 has been completed and second regression test will be performed during ITC2. An integrated project plan has been created by SI, Trinoor and BC Hydro sustainment team to ensure a comprehensive testing and conversion approach.
30	Interdependencies between SCA and other ongoing initiatives	2018-04-03	30. Mitigation Strategy Defined	6	2	3	Rico, Ivette Gupta,	Treat (or Reduction)	SCA project established as a key priority by the Executive Team. A Solution Alignment forum has been established to manage system changes and environment availability. This body has representatives from each of the major ongoing projects.
37	Performance issues SAP ECC-Transaction CJ20N	2018-05-11	30. Mitigation Strategy	6	2	3	Abhinav	Treat (or Reduction)	To be reviewed as part of the results of planned system performance testing.
67	Central Warehouse Renovation Project	2018-11-19	30. Mitigation Strategy Defined	6	3	2	Gebert, Darren	Treat (or Reduction)	Warehouse renovation project are changing the sequence of work to focus on the rebuilding of the main warehouse building ahead of the construction of the new Critical Spares storage building. This should allow the work in the main warehouse building to be completed in time to not impact SCA. SCA has asked that the main warehouse building to be completed by Sept 1, 2019. Some risk remains that their schedule will slip as they do not have final permitting yet. Bi-weekly touch base meetings to continue to monitor risk.
76	Change in BC Hydro external auditor could introduce additional testing or review requirements	2019-01-23	30. Mitigation Strategy Defined	6	2	3	Shivji, Zaheer	Tolerate (or Acceptance)	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.
80	Residual risk - Fail to reclassify of "SAP Personnel Number" to become non private information may result in Partner Number on PO/OA transactions need to be masked.	2019-03-11	30. Mitigation Strategy	6	3	2	Setiawan, Ben	Treat (or Reduction)	Apply enhancement to mask personnel id in OA/PO transactions if the replacement of personnel number as authentication in other systems cannot be done in time.
84	Additional SAP ECC or Ariba licensing may be required to support future state service entry sheet process	2019-03-25	30. Mitigation Strategy Defined	6	2	3	Shivji, Zaheer	Treat (or Reduction)	Conduct analysis of transaction channels and mapping to existing contracts to determine which vendors will transact on each platform (Ariba vs. ECC Fiori). Use the outcome of this analysis to: - refine estimate of future document volumes and compare to benchmarks provided by Ariba and existing commercial arrangements; - estimate number of vendors/users who will need to access ECC; - leverage BCH IT as required to engage in commercial discussions with SAP.
90	Missing data elements in SCA/BW data model to meet SCA reporting requirements	2019-05-28	30. Mitigation Strategy Defined	6	2	3	Smith, Hugh (SAP PM)	Treat (or Reduction)	Will continue to monitor development of reporting specs and data model to minimize likelihood of missing key data elements from the reporting model. Deliverable RD51 also added to provide additional understanding / review / sign-off of the BW data model.
94	With only one planned comprehensive test cycle (ITC2) we may fall short of Q4 Gate	2019-05-29	30. Mitigation Strategy Defined	6	3	2	Hunter, Ross	Treat (or Reduction)	Start of ITC2 will be delayed by roughly 4 to 6 weeks while project ensures entry criteria are met. This will reduce the likelihood of ITC2 not executing effectively. Residual risk remains that ITC2 timeline may need to be extended to fully achieve defined exit criteria. Updated approach presented to Steering Committee Oct 4, 2019.

ID	Title	Created	Current Status	Risk Score	Impact	Likelihood	Risk Owner	Treatment Strategy	Risk Response/Mitigation
101	Performance of conversion during cutover weekend	2019-06-21	30. Mitigation Strategy Defined	6	2	3	Hunter, Ross	Treat (or Reduction)	<ol style="list-style-type: none"> 1. Data team completes initial loads in S07/SD7. 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/SD7 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.
103	Existing Contractor Portal Technology Version	2019-07-24	30. Mitigation Strategy Defined	6	2	3	Barnard, Tys	Treat (or Reduction)	<p>Project to review technology implications of moving forward with current SCA design or look at other options.</p> <p>Risk has materially passed. Plan established with sustainment group as to how to proceed with contractor portal development.</p>
26	Potential impact to union roles / job descriptions as a result of the project	2018-02-26	30. Mitigation Strategy Defined	4	2	2	Johnson, Valerie	Treat (or Reduction)	<p>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. HR representation will be on the teams to lead any effort to communicate with the union and make updates to Job Descriptions.</p>
34	Level of continued support for scheduled and ad-hoc excel exports on SCA data in Passport & SAP	2018-05-01	30. Mitigation Strategy Defined	4	2	2	Setiawan, Ben	Terminate (or Avoidance)	<p>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 tools or an IT support model for ensuring access to the data when needed.</p>
46	SCA Regression Testing not final testing cycle	2018-05-29	30. Mitigation Strategy Defined	4	2	2	Rico, Ivette	Treat (or Reduction)	<p>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.</p>
82	Inefficient Partner Assignment if System Performance is Poor	2019-03-24	30. Mitigation Strategy Defined	4	2	2	Barnard, Tys	Treat (or Reduction)	<p>Ensure system performance is enough to prevent bottlenecks such as this one.</p>
87	SCA project depends on HR mini master for contractors being loaded through sustainment	2019-04-16	30. Mitigation Strategy Defined	4	2	2	Setiawan, Ben	Tolerate (or Acceptance)	<p>Monitor.</p>
74	No Mass Upload Tool for Updating Material Group on Service Masters	2018-12-14	30. Mitigation Strategy Defined	3	1	3	Wong, Brian	Tolerate (or Acceptance)	<p>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.</p>
95	Pre go-live training cannot be conducted in the planned 4 weeks	2019-05-29	30. Mitigation Strategy Defined	2	2	1	Watt, Daniel	Treat (or Reduction)	<p>Validate the 4 week training assumption with the detailed course schedule. [Update: new schedule contains 5 weeks of training delivery. Final schedule to be validated] Update 2: new schedule has been approved by Steering Committee, which includes 5 weeks of pre-Go Live end user training Assessing option to reduce pre-golive training and focus on core activities only. Planning to be completed by mid-October 2019.</p>
12	Extent of use of Service Masters and Services in Design	2018-02-05	40. Closed	16	4	4	Trask, Jon	Terminate (or Avoidance)	<p>Service masters and use in services will be determined in purchasing workshops, currently mitigating other service related risks through elevation and visibility.</p>
41	Schedule/Quality Risk not to make to Playback in time/quality	2018-05-17	40. Closed	16	4	4	Buehner, Carsten	Tolerate (or Acceptance)	<p>Activity focus on critical path activities leading towards Playback and Extend Design duration for 2 weeks to allow completion at current high intensity</p>
44	RICEFWU exceeds baseline estimates. Reduction of objects may impact solution design	2018-05-22	40. Closed	16	4	4	Shivji, Zaheer	Treat (or Reduction)	<p>Risk has passed. RICEFWU scope confirmed.</p>
25	BC Hydro Dashboard tool running out of support and not user friendly	2018-02-26	40. Closed	15	3	5	Buehner, Carsten	Tolerate (or Acceptance)	<p>The mandate for the project is not to change existing BC Hydro reporting tools and strategy</p>
66	IT sourcing award in June 2019 conflicts with SCA schedule	2018-11-06	40. Closed	15	3	5	Dixon, Kiernan	Tolerate (or Acceptance)	<p>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. Plan B: Start the design based on current supplier (Compugen) and twist it later on once the real supplier is confirmed.</p>

ID	Title	Created	Current Status	Risk Score	Impact	Likelihood	Risk Owner	Treatment Strategy	Risk Response/Mitigation
93	Technical build not completed before ITC1	2019-05-29	40. Closed	15	3	5	Hunter, Ross	Terminate (or Avoidance)	Close design decisions Ramp up build throughput (capacity, collaboration across teams) 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)
98	Ariba Timeline	2019-05-29	40. Closed	15	3	5	Kiernan, Dixon	Treat (or Reduction)	Escalated to issue 75 as items not delivered per schedule.
13	Meaningful engagement of Business before Workshops	2018-02-05	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	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/Ariba. Specific workshops in scheduled in Cycle 2 to review and develop solution for how SCW Ariba and ECC interact.
22	Unifier and SCA Scope	2018-02-20	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	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 SCA HP ALM is feasible and Plan C to stay on v11.x and not upgrade.
28	BCH Business Lead playing dual roles on the project (old risk 77)	2018-02-28	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	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	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 change impact for end users.
65	BW migration on HANA may result in impact to SCA reporting development	2018-11-02	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 Constrains for BW Reports	2018-11-21	40. Closed	12	3	4	Rico, Ivette	Tolerate (or Acceptance)	Risk has passed.
75	L3 Process Review time is taking longer than expected, impacting project schedule	2019-01-16	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).
77	More time and effort to be involved in 'Puchasing Tax Determination' solution design	2019-02-07	40. Closed	10	2	5	Yang, Robbin	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.
102	Requirements for approvals design may not be fully reflected in the current design	2019-06-28	40. Closed	10	2	5	Shivji, Zaheer Luna	Treat (or Reduction)	Escalated to CR 163
14	Quality Impact due to Agressive Schedule	2018-02-08	40. Closed	9	3	3	Leonardo	Tolerate (or Acceptance)	Risk has now passed. Schedule extended per Steering Committee approval (PLCN's 27, 28, and 29) to resolve resulting quality impacts of aggressive schedule.
23	Aggressive schedule of Design Stage	2018-02-22	40. Closed	9	3	3	Smith, Hugh (SAP PM)	Treat (or Reduction)	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.
29	Inability to properly limit access to supply chain information	2018-03-19	40. Closed	9	3	3	Simpson, George	Treat (or Reduction)	Risk has passed.
32	Extent of Fiori (or similar) user interface ehancement required	2018-04-27	40. Closed	9	3	3	Gupta, Abhinav	Treat (or Reduction)	Develop approach to decide on appropriate user experience and decision approach with Working Group.

ID	Title	Created	Current Status	Risk Score	Impact	Likelihood	Risk Owner	Treatment Strategy	Risk Response/Mitigation
35	Lack of clarity / pre-socialization with Working Group on design approval process may slow approval timing	2018-05-04	40. Closed	9	3	3	Yang, Robbin	Treat (or Reduction)	To conduct sessions with WG during May to present C2 Playback Methodology, present Approval Flow and Deliverables Templates (Integrated Design Report). 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.
45	Impact of the Passport mechanism for Average Unit Pricing calculation versus the SAP Moving Average Pricing	2018-05-22	40. Closed	9	3	3	Martell, Wayne	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 BCH to assess the risk and next actions.
49	Plan to use the data leads as the project cutover leads not BC Hydro's standard approach	2018-06-07	40. Closed	9	3	3	Praveen, Roch	Treat (or Reduction)	Risk has passed. Plan has been updated such that the Integration Manager will transition into the role of cutover lead.
51	Solutioning for IT will extend beyond Design for Telus TSR replacement project	2018-06-15	40. Closed	9	3	3	Luna, Leonardo	Treat (or Reduction)	Additional review sessions held with IT to confirm solution meets additional requirements. Risk has passed.
57	Overall project budget may exceed upper bound cost estimate of 79.3M	2018-08-14	40. Closed	9	3	3	Smith, Hugh (SAP PM)	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.
58	Plans for data conversion, data clean-up and data creation not fully detailed as of the end of Design Stage	2018-10-02	40. Closed	9	3	3	Turnbull, Greg	Treat (or Reduction)	High level plan for developing a plan: - 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 DTO) [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 in progress [IN PROGRESS] 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.
70	Records Managements requirement might require more complex technical solution	2018-11-22	40. Closed	9	3	3	Rico, Ivette	Treat (or Reduction)	Risk has passed.
79	The design of Purchasing solution in not clearly understood by different stakeholders involved	2019-03-06	40. Closed	9	3	3	Korsei, Maryna	Treat (or Reduction)	1) Review of targeted areas of the design by Senior Procurement Manager (Rob Dodman) during March and April 2) Design walk-through sessions with Rob Dodman, Linda Beardsell, Maryna, Zaheer and Purchasing team held on April 12, April 26 & May 3 2) Review of Purc decisions at the Open design workshops with the broader SCA team 3) Integrated L3 review sessions with the broader SCA team 4) Involvement of the Business Lead, and external stakeholders (e.g. Linda) into the design or implementation issues as required.
91	Overpayment due to Duplicate Service Entry Sheets	2019-05-28	40. Closed	9	3	3	Garsault, Olivier	Treat (or Reduction)	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 ME2S-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 BCH 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.

ID	Title	Created	Current Status	Risk Score	Impact	Likelihood	Risk Owner	Treatment Strategy	Risk Response/Mitigation
									<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 standard compliment 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: <ul style="list-style-type: none"> <input type="checkbox"/> anticipated MRO business processes as per MRO Pilot' initiative and <input type="checkbox"/> 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>
38	No Solution for MRO	2018-05-14	40. Closed	8	2	4	Yang, Robbin	Treat (or Reduction)	
39	Unexpected Project Costs from Implementation of Online Catalogues via Ariba	2018-05-14	40. Closed	8	2	4	Shivji, Zaheer	Treat (or Reduction)	Risk has passed. Use of Ariba confirmed and consistent with project budget.
69	BW Rework and New Reports Post SCA Go Live	2018-11-21	40. Closed	8	2	4	Rico, Ivette	Treat (or Reduction)	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.
78	Ariba-Advance Ship Notice enhancement needed if MMQ needs Deliveries to be Picking Relevant	2019-02-22	40. Closed	8	2		Gebert, 4 Darren	Tolerate (or Acceptance)	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.
81	Customer Build Program - BCH provides Materials to ESPs directly	2019-03-20	40. Closed	8	2		Gebert, 4 Darren	Treat (or Reduction)	MMQ BSL is currently in conversation with the Proposal lead and will be listed as optional attendee on all upcoming proposal review/assessment meetings.
86	Realization of benefit of improved inventory turns may be impacted by poor scheduling compliance	2019-03-29	40. Closed	8	2		Sveinson, 4 Laurie	Treat (or Reduction)	Complete initial rough assessment of proposal's impact to current SCA design/solutions
100	Training Risk - "Train the BCH Trainer" Effectiveness for Demand/MRP Related Solutions	2019-06-18	40. Closed	8	2		Gebert, 4 Darren	Treat (or Reduction)	Item identified will be addressed through Communications, Training, Key Actions and the Sustainment Plan.
9	Ability to identify and confirm Business SME's for planned Kick-Off	2018-01-29	40. Closed	6	2	3	Shivji, Zaheer	Treat (or Reduction)	Continued Knowledge Transfer
17	Scope Risk related to potential increase of MDG with impact on MDG and broader System Integration Scope	2018-02-16	40. Closed	6	2	3	Schellekens, Harold	Terminate (or Avoidance)	Confirmed Course Outline and Delivery Approach
24	CDC - Central Distribution Center Decision is made but not implemented yet	2018-02-23	40. Closed	6	2	3	Peachey, Tanya	Treat (or Reduction)	PMO considered options and impacts and collectively moved the Kick-Off to 29 Jan 2018.
33	Timing risk of completing ITDSP Gate 3 approval may become bottleneck on Imp Phase approvals	2018-04-30	40. Closed	6	3	2	Schellekens, Harold	Treat (or Reduction)	Initial investigations underway, focus topic in Design
40	Schedule and scope for UAT and Regression	2018-05-17	40. Closed	6	2	3	Kim, Charbonneau	Treat (or Reduction)	Risk has passed. Enterprise structure confirmed through Design Stage. Included in Implementation plans to deploy.
47	RICEFW Tracker usage (KPMG item May 18, 2018)	2018-06-01	40. Closed	6	2	3	Schellekens, Harold	Treat (or Reduction)	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 Two regulatory application has been filed. Risk has passed. Gate 3 successfully past September 13, 2018 ahead of special Board Meeting on September 27, 2018.
									Monitor Unit Testing for meeting Q-Gate for Integration Testing, monitor Integration Testing so UAT is not impacted.
									Risk has passed per KPMG Design Review Report.

ID	Title	Created	Current Status	Risk Score	Impact	Likelihood	Risk Owner	Treatment Strategy	Risk Response/Mitigation
48	Proper disposition / documentation of items within Fit / Gap log (KPMG item May 18, 2018)	2018-06-01	40. Closed	6	2	3	Yang, Robbin	Treat (or Reduction)	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 are defined and KPI tracked key activity. Risk has passed per KPMG Design Review Report
50	Potential conflict on QM configuration/design for meters (devices) between SCA and Meter Tracking (MTS) projects during realization phase	2018-06-13	40. Closed	6	2	3	Rico, Ivette	Treat (or Reduction)	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.
61	QM Key User Availability during Realization Phase	2018-10-22	40. Closed	6	2	3	Rico, Ivette	Treat (or Reduction)	PMO: Business has agreed to assign multiple part time resources .
64	A/P workload may increase as a result of the future Ariba scope	2018-10-29	40. Closed	6	2	3	Luna, Leonardo	Treat (or Reduction)	Simplify 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).
71	Additional BW net new requirements, could introduce additional scope for custom development	2018-11-22	40. Closed	6	2	3	Brandes, Michael	Treat (or Reduction)	PwC will confirm the requirements by end of RM2
72	Lack of functional specs will impact dev. teams ability to meet RM2 development targets	2018-12-07	40. Closed	6	2	3	Brandes, Michael	Treat (or Reduction)	Proposed mitigation would be to get all specs. for RM2 approved by Dec. 14th - this is the last date for the tech team to have all RM2 specs approved with CRs
83	Transmission Line workflow will not operate correctly if business does not agree to change some current practices	2019-03-25	40. Closed	6	2	3	Martell, Wayne	Treat (or Reduction)	Summarize the changes that T-Lines would need to make to its current practices and present to business stakeholder (Bill Earis). If not willing to make the changes by F21 escalate to Steering Committee for resolution. Since it is not feasible to make the changes part way through a fiscal year, for the remainder of F20, accept that this risk will materialize and include the appropriate mitigating activities as part of the Readiness and Transition Planning activities for T-Lines and Materials Management. Risk has now passed. Future state process agreed to with Transmission and plans incorporated into change management and engagement activities.
85	Loss of knowledge continuity due to illness of Finance Lead	2019-03-27	40. Closed	6	2	3	Shivji, Zaheer	Treat (or Reduction)	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 resource(s) for each activity. Andrea Ling has transitioned into the role to provide support in Maria's absence.
92	Detailed design is not completed by April 29th	2019-05-29	40. Closed	6	2	3	Peachey, Tanya	Treat (or Reduction)	Prep for, engage right participants, closely manage discussion, push for clear decisions
96	Quality Issues (incl. design) may show up in ITC1	2019-05-29	40. Closed	6	3	2	Hunter, Ross	Treat (or Reduction)	Risk has materially passed. Project continues to work to updated timeline for completing ITC1 activities. Identified defects being resolved based on priority. While some process / design items logged, no significant design gaps were identified.
99	Inability to sufficiently restrict access to Supply Chain data in BW	2019-05-31	40. Closed	6	3	2	Shivji, Zaheer	Treat (or Reduction)	Risk has passed. Reviewed proposed detailed design with key stakeholders and confirmed that approach is acceptable. CR 176 logged to track addition of new auth objects to control table.
10	BCH Work Management Business Lead not committed full time yet	2018-01-29	40. Closed	4	2	2	Shivji, Zaheer	Treat (or Reduction)	Confirm the status and pending outcomes with Leadership.
15	Start of Implementation Phase may be delayed due to phase funding approval delay	2018-02-15	40. Closed	4	4	1	Smith, Hugh (SAP PM)	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.
18	Other Project Risk: Operations Integration Program	2018-02-19	40. Closed	4	2	2	Smith, Hugh (SAP PM)	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. 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.

ID	Title	Created	Current Status	Risk Score	Impact	Likelihood	Risk Owner	Treatment Strategy	Risk Response/Mitigation
19	Other project risk: CLRA VMS development and timing risk	2018-02-19	40. Closed	4	2	2	Rico, Ivette	Treat (or Reduction)	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.
31	Access to historic PDW for Supply Chain Reports	2018-04-25	40. Closed	4	2	2	Setiawan, Ben	Terminate (or Avoidance)	Current PDW 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 PassPort system utilized for supply chain historical data access.
52	Absence of Overall Plan and Owner for Material/Service Group	2018-06-19	40. Closed	4	2	2	Peachey, Tanya	Treat (or Reduction)	Risk has materially passed. Resource has been assigned to complete design process. Will continue to monitor for initial months of Realization.
53	Absence of Overall Plan and Owner for Service Master	2018-06-19	40. Closed	4	2	2	Peachey, Tanya	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. Risk materially passed. Tania Cernezel assigned to complete this activity. Will continue to monitor through early Realization phase.
54	Time in design to fully work through integrated process designs (KPMG item June 15)	2018-06-22	40. Closed	4	2	2	Peachey, Tanya	Treat (or Reduction)	<ul style="list-style-type: none"> 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 (RDD) are noted in the swim lanes, RICEFWU 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.
59	Material Master MDRS additional activities planned to be finished by Oct 26	2018-10-13	40. Closed	4	1	4	Ortega cardenas, Mario	Tolerate (or Acceptance)	Close follow up on decision making and MDRS Documentaiton
62	Demand Management / MRP Consultant is required	2018-10-23	40. Closed	4	2	2	Brandes, Michael	Treat (or Reduction)	Currently MRP / Demand Management Activities and Master Data has been split among different members of the teams in order to perform baseline configuration.
73	Data team resource plan may be insufficient towards the end of the project risking quality and schedule	2018-12-13	40. Closed	4	2	2	Brandes, Michael	Tolerate (or Acceptance)	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.
36	BW loads taken 10 to 12 hour today. 60% additional load is coming because of SCA	2018-05-10	40. Closed	3	1	3	Cachero, Wendy	Treat (or Reduction)	To be tested through system performance testing per current plan and resolved as required.
11	ECC SAP Access to Prep for SAP 101 Demo	2018-01-29	40. Closed	2	1	2	Trask, Jon	Treat (or Reduction)	Assign Access to SAP Sandbox for Functional Consultants within 5 Days.
104	User interface for entering materials from Outline Agreement might not be acceptable for end users	2019-09-10	60. Updates Required	6	2	3	Setiawan, Ben	Treat (or Reduction)	To be tracked through engagement and BAR activities. Will be logged as a CR if raised as a concern by users.
16	Scope Risk related to potential increase of Ariba use with impact on Unifier and SC Workspace (closed as duplicate)	2018-02-16	70. Cancelled	12	4	3	Schellekens, Harold	Terminate (or Avoidance)	Duplicate. Risk cancelled.
55	Data conversion scope risk related to other BCH projects (business or IT)	2018-06-27	70. Cancelled	9	3	3	Praveen, Roch	Treat (or Reduction)	Duplicate of risk 30
43	Unrealized Benefits & Procurement Inefficiencies due to Missing Service Master Standards	2018-05-21	70. Cancelled	6	2	3	Praveen, Roch	Treat (or Reduction)	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: <ul style="list-style-type: none"> - 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

ID	Title	Created	Current Status	Risk Score	Impact	Likelihood	Risk Owner	Treatment Strategy	Risk Response/Mitigation
56	SCA Project Delays due to CLRA Deliverables	2018-06-30	70. Cancelled	4	2		Schellekens, Harold	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 Robbin Yang, and CLRA team and Leo/Kiernan/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.

BC Hydro Supply Chain Applications Project

Progress Report No. 1

Appendix D

Project Schedule

ID	%	Task Name	Start	2019 Qtr 1			2019 Qtr 2			2019 Qtr 3			2019 Qtr 4			2020 Qtr 1			2020 Qtr 2			2020 Qtr 3	
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
1	71%	Realization	Mon 19-04-01																				
2	0%	SCA Realization Phase	Mon 19-04-01																				
4	100%	Solution Definition (PFD, Security, FSD)	Mon 19-04-01																				
11	94%	Solution Development (Development, FUT)	Mon 19-04-01																				
12	92%	Material Management & Quality	Mon 19-04-01																				
13	97%	Purchasing & Contracts	Mon 19-04-01																				
14	92%	Work Management Integration	Mon 19-04-01																				
15	100%	Projects Integration	Mon 19-04-01																				
16	100%	Master Data Governance	Mon 19-04-01																				
17	85%	Ariba	Mon 19-04-01																				
18	0%	As-Built Solution Documentation	Mon 19-09-30																				
19	0%	Material Management & Quality	Mon 19-09-30																				
20	0%	Purchasing & Contracts	Mon 19-09-30																				
21	0%	Work Management Integration	Mon 19-09-30																				
22	0%	Projects Integration	Mon 19-09-30																				
23	0%	Master Data Governance	Mon 19-09-30																				
24	0%	Ariba	Mon 19-09-30																				
25	88%	Reporting	Fri 19-05-10																				
26	95%	Reporting Definition	Fri 19-05-10																				
27	84%	Reporting Development	Wed 19-06-05																				
28	88%	Back end Development	Wed 19-06-05																				
29	62%	Front end Development	Mon 19-09-02																				
30	99%	Data	Mon 19-04-01																				

Project: SC view
Date: Thu 19-10-10

Task		Project Summary		Duration-only		External Tasks		Progress	
Split		Inactive Task		Manual Summary Rollup		External Milestone		Manual Progress	
Milestone		Inactive Milestone		Manual Summary		Deadline		Slippage	
Summary		Inactive Summary		Start-only		Critical			
Summary Progress		Manual Task		Finish-only		Critical Split			

ID	%	Task Name	Start	2019 Qtr 1			2019 Qtr 2			2019 Qtr 3			2019 Qtr 4			2020 Qtr 1			2020 Qtr 2			2020 Qtr 3	
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
31	100%	Data Business Preparation & Conversion Readiness ITC1	Mon 19-04-01																				
32	95%	Data Business Preparation ITC2	Mon 19-07-29																				
33	100%	Data Conversion Readiness ITC2	Mon 19-07-29																				
34	62%	Testing	Mon 19-06-03																				
35	100%	String Testing Development	Mon 19-06-03																				
36	70%	String Testing Execution Iteration 1	Tue 19-07-02																				
37	97%	String Testing Execution Iteration 2	Mon 19-07-29																				
38	80%	String Testing Execution Iteration 3	Tue 19-09-03																				
39	87%	Integration Test Cycle 1	Mon 19-07-29																				
40	0%	Integration Test Cycle 2	Mon 19-09-23																				
41	78%	Change Management and Business Transformation	Mon 19-04-01																				
42	40%	Training Preparation (Realization)	Mon 19-07-15																				
43	0%	Final Preparation	Mon 19-11-25																				
44	0%	User Acceptance Testing	Mon 19-12-02																				
45	0%	Training Preparation (Final Prep)	Mon 19-11-25																				
46	0%	Training Delivery	Mon 20-01-13																				
47	0%	Cutover	Mon 20-02-17																				
48	0%	Target in-Service Date	Tue 20-02-18																				
49	0%	Stabilization	Wed 20-02-19																				

Project: SC view
Date: Thu 19-10-10

Task		Project Summary		Duration-only		External Tasks		Progress	
Split		Inactive Task		Manual Summary Rollup		External Milestone		Manual Progress	
Milestone		Inactive Milestone		Manual Summary		Deadline		Slippage	
Summary		Inactive Summary		Start-only		Critical			
Summary Progress		Manual Task		Finish-only		Critical Split			