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March 11, 2016

Ms. Erica Hamilton
Commission Secretary
British Columbia Utilities Commission
Sixth Floor – 900 Howe Street
Vancouver, BC V6Z 2N3

Dear Ms. Hamilton:

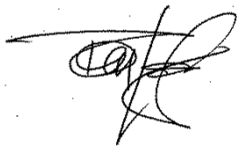
**RE: British Columbia Utilities Commission (BCUC or Commission)
British Columbia Hydro and Power Authority (BC Hydro)
PUBLIC Site C Clean Energy Project – Progress Report No. 2
F2016 Q3 - October to December 2015**

BC Hydro writes to provide its public Site C Clean Energy Project Progress Report No. 2. Commercially sensitive and contractor-specific information has been redacted.

A confidential version of the Report is being filed with the Commission only under separate cover.

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

Yours sincerely,



Tom Loski
Chief Regulatory Officer

st/ma

Enclosure (1)

Site C Clean Energy Project

Quarterly Progress Report No. 2

F2016 Third Quarter

October 2015 to December 2015

PUBLIC

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1 **Project Status**

2 This Quarterly Progress Report No. 2 (**Report No. 2**) provides information concerning
3 the Site C Clean Energy Project (**Project**) covering the period from October 1, 2015 to
4 December 31, 2015.

5 **1.1 Overview and General Project Status**

6 The Project will construct a third dam and hydroelectric generating station on the Peace
7 River in northeast B.C. to provide 1,100 megawatts of capacity, and produce about
8 5,100 gigawatt hours per year. In December 2014, the Project received approval from
9 the provincial government to proceed to construction. The Project is in Implementation
10 Phase and construction commenced July 27, 2015.

11 Construction activity for the Site C project has steadily increased over the fall with
12 approximately 518 workers on site in December 2015. On the north bank of the dam
13 site, construction of access roads is still underway with the Left Bank Excavation works
14 under full progress. River Road, which will provide access to the Peace River
15 Construction Bridge's North Approach, will remain under construction until the end of
16 June 2016. The Peace River Construction Bridge is progressing well from the South
17 Abutment and is on schedule for completion at the end of March 2016. Over
18 250 hectares of clearing has been completed between the north and south bank of the
19 dam site. Merchantable logs harvested from the North Bank have been delivered to
20 local mills in Fort St. John and logs from the South Bank will be delivered to local mills
21 once the Peace River Construction Bridge has been completed.

22 Construction of the Worker Accommodation Camp continues with the initial opening of
23 300 rooms and the onsite Construction Management Site Office infrastructure expected
24 for a March 1, 2016 occupation.

25 The Construction Management Team is currently working with the Peace River Hydro
26 Partners to prepare for their mobilization to site, anticipated to commence in the last
27 couple of weeks of January. Recruitment for administration of this major contract is

1 currently underway and all efforts are focused on providing substantial opportunities for
2 local candidates.

3 Overall, the progression of work is on track to achieve the BC Hydro *Board of Directors*
4 (**Board**) *approved in-service dates*; the first unit is expected to come on line in
5 December 2023 and the final in-service date is expected in November 2024. Costs are
6 still forecast to come within the Board approved P50 amount (\$8.335 billion).

7 [Table 1](#) provides a dashboard based on the Project status as at December 31, 2015.

8 **Table 1 Project Status Dashboard**

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

Status as of:		December 31, 2015	Overall:	●
Overall Assessment	●	The Project is on track for overall scope and schedule. The Project is on track with the Project completion date of November 2024 ¹ .		
Schedule ISDs	●	The overall schedule and progress remains on track to achieve the planned In Service Dates.		
Cost	●	Near term expenditure projections have increased but the overall cost forecast remains on track. Total project cost is forecast to be within budget. There have been no draws on Treasury Board reserve.		
Permits and Environmental	●	<p><u>Provincial Permits:</u> Some permit applications are currently under review by Forest, Lands and Natural Resource Operations, but have not yet been issued. It is anticipated that these permits will be issued in time for the specific construction activities to commence as scheduled. The Water Licence decision is anticipated to be issued in February 2016.</p> <p><u>Federal Authorizations:</u> Applications for Main Civil Works were submitted to both Transport Canada and Fisheries and Oceans Canada for review.</p> <p><u>Environment:</u> 70 minor incidents occurred over the quarter. The majority of the incidents (66/71) were related to equipment spills (either fuel/hydraulic or antifreeze) and were inconsequential from a regulatory and environmental perspective. One incident was classified at a moderate level (S2) due to regulator interest although no environmental impact is acknowledged.</p>		
Risks	●	Identified risks are being managed and treatments are in place. For details refer to section 4 Material Project Risks below.		
First Nations	●	Offers to negotiate Impact Benefit Agreement have been made to all First Nations significantly affected by the Project.		
Regulatory and Litigation	●	Decisions made by the Crown may be subject to additional judicial reviews by First Nations and others who may oppose the project.		
Safety	●	No Level 1 or 2 safety incidents have occurred at the construction site in this quarter.		

10 ¹ The Board approved In Service Dates for total Project completion November 2024

1 **1.2 Major Accomplishments, Work Completed, Key Decisions and**
 2 **Key Issues**

3 **1.2.1 First Nations Consultation**

4 Pursuant to the Environmental Assessment Certificate and Federal Decision Statement,
 5 BC Hydro is required to consult with 13 Aboriginal groups with respect to the
 6 construction stage of the Project. This consultation includes provision of information on
 7 construction activities, support for the permit review process, and review and
 8 implementation of mitigation, monitoring and management plans, and permit conditions.
 9 Efforts are ongoing to conclude impact benefit agreements with ten First Nations.

10 **1.2.2 Litigation**

11 Of seven legal challenges initiated to date, two were discontinued, four were dismissed
 12 by the courts, one hearing is ongoing and is expected to finish by February 2016 and
 13 three appeals were filed. The details are summarized in [Table 2](#) below.

14 **Table 2 Litigation Status Summary**

Outcome		Date
Federal Court: Federal Environmental Approval		
Mikisew Cree Athabasca Chipewyan	Two judicial reviews were discontinued after agreements were reached with BC Hydro and the federal government	July 16, 2015
Peace Valley Landowner Assoc.	Dismissed ; no appeal filed	August 28, 2015
Prophet River First Nation West Moberly First Nations	Dismissed Appeal filed No hearing date yet	August 28, 2015 September 30, 2015
B.C. Supreme Court: Provincial Environmental Assessment Certificate		
Peace Valley Landowner Assoc.	Dismissed Appeal filed Hearing date set	July 2, 2015 July 30, 2015 April 4 to 5, 2016
Prophet River First Nation West Moberly First Nations	Dismissed Appeal filed No hearing date yet	September 18, 2015 October 19, 2015

Outcome		Date
B.C. Supreme Court: Provincial Permits		
Prophet River First Nation West Moberly First Nations	Injunction application dismissed Hearing of Petition underway (not complete)	August 28, 2015 November 17 to 23, 2015; adjourned to February 2016 to complete hearing.

1 Status as of December 31, 2015.

2 **1.2.3 Permits and Government Agency Approvals**

3 **1.2.3.1 Background**

4 In addition to the Environmental Assessment Certificate and the Federal Decision
 5 Statement, provincial permits and federal authorizations are required to construct the
 6 Project. Timing of the application for these permits and authorizations is staged and
 7 aligned with the construction schedule, availability of detailed design information, and by
 8 Project component.

9 **1.2.3.2 Provincial Permits**

10 The strategy for Site C provincial permits involves a phased approach to the submission
 11 of applications to the Ministry of Forests, Lands and Natural Resource Operations
 12 based on Project components and construction schedule.

13 [Table 3](#) below provides a list of permits and authorizations that have been issued for
 14 site preparation works at the dam site, for vegetation clearing and quarries/pits. The
 15 project received three authorizations in this reporting period. Nine additional permits
 16 were expected to be issued in December 2015 but are now anticipated for
 17 January 2016.

1 **Table 3 Site Prep Works Permits and Authorizations**

Required Permit/Approval	Process Initiation/ Application Date	Approval Date/ Forecast Decision Date
BC Environmental Assessment Certificate Federal Decision Statement (revised date)	Submitted EIS Jan 2013	October 14, 2014 – EAC November 25, 2014 – FDS
Crown Land Tenures	April 2014	July 7, 2015
<i>Water Act</i> (section 8&9)	April 2014	July 7, 2015
Occupant Licence to Cut	April 2014	July 7, 2015
<i>Mines Act</i> (Notice of Works)	April 2014	July 7, 2015
<i>Wildlife Act</i>	April 2014	July 7, 2015
<i>Heritage Conservation Act</i>	November 2014	July 14, 2015
<i>Fisheries Act</i> Authorization – Site Preparation	October 2014	September 30, 2015
<i>Navigation Protection Act</i> Authorization	October 2014	September 29, 2015
Removal of land from Agricultural Land Reserve	December 2014	April 2015
Floating Dock Installation – Notification	October 2015	October 30, 2015
Peace River Safety Buoys – Notification Amendment	November 2015	November 3, 2015
Moberly River Crossing – Notification for Crossing 3, 4, 5, 61, 62	December 2015	December 29, 2015
<i>Fisheries Act</i> Authorization – Civil Works	December 2015	<i>Forecast:</i> April 2016
<i>Navigation Protection Act</i> Authorization – Civil Works	October 2014	<i>Forecast:</i> April 2016
34 Permit applications currently under review with Forests, Lands and Natural Resource Operations	Various dates in 2015	December 2015 <i>Forecast:</i> May 2016
Water Licence Diversion & Storage	2008	<i>Forecast:</i> February 2016

2 The Water Licence for diversion and storage is currently under review with the Water
 3 Comptroller’s office. The review includes a written hearing with two rounds of comments
 4 and responses as well as First Nations consultation. The hearing portion of the process
 5 was completed in December 2015 and the Water Comptroller is expected to make a
 6 decision in February 2016.

7 **1.2.3.3 Future Provincial Permits**

8 [Table 4](#) below lists the general categories of future provincial permit requirements for
 9 the different Project components.

1 **Table 4 General List of Future Permit Requirements**

Project Component	Key Permit Requirements	Required Date
Main Civil Works	Water Licence 1 st Leaves to Commence <i>Wildlife Act</i> (fish, amphibian salvage) <i>Water Act</i> (section 8 – short term use)	February 2016 April 2016 May 2016 July 2017
Highway 29 Realignment (Cache Creek section)	<i>Land, Water, Wildlife, Heritage Conservation, Forest Acts</i>	May 2016
Other sections	<i>Land, Water, Wildlife, Heritage Conservation, Forest Acts</i>	Fall 2016 and beyond
Transmission	<i>Land, Water, Wildlife, Heritage Conservation, Forest Acts</i>	August 2016
Quarries/Pits	<i>Land, Water, Wildlife, Heritage Conservation, Forest, Mines Acts</i>	Spring 2016
Mitigation Works (e.g., Fish and Wildlife)	<i>Water Act, Wildlife Act</i>	TBD

2 Assumptions:

- 3 • Permit requirements listed are general in nature. Additional permits may be identified and required under the
 4 various acts as detail design and construction proceeds for the different Project components.
 5 • The date required is subject to change based on changes to the construction design, methods and/or schedule
 6 and the consultation process currently being discussed with the Province, DFO and Transport Canada.

7 Future applications include Land, Water, Wildlife, Forest, Mines, and *Heritage*
 8 *Conservation Act* permits for the Main Civil Works, transmission line, Highway 29
 9 realignment, quarries and pits and the mitigation and monitoring works (e.g., fish
 10 contouring for minimizing the risk of fish stranding). Weekly meetings with the Ministry
 11 of Forests, Land and Natural Resource Operations are continuing to ensure that these
 12 future applications meet the scheduling needs of the Project.

13 **1.2.3.4 Future Federal Authorizations**

14 The *Navigation Protection Act* application for construction and reservoir filling is
 15 complete and Transport Canada is consulting on components in preparation for
 16 authorization issue. A *Fisheries Act* authorization is also required and BC Hydro
 17 submitted the application in December 2015. The application includes the authorization
 18 for reservoir filling. The Department of Fisheries and Oceans' consultation period began
 19 in late December 2015.

1.2.4 Engineering and Construction

1.2.4.1 Engineering

The implementation design of the Power Intakes and Spillways is progressing with tender specifications and drawings targeted to be complete by the end of April 2016 for the Intakes and end of June 2016 for the Spillways. These dates are slightly later than last forecast as a result of additional analysis and design required for some of the structures. The tender design schedule for the powerhouse has been updated based on the award date for the turbine generator contract with completion by end of September 2016. Main Civil Works implementation design is continuing and the issuing of the construction drawings is planned to commence following contract award. Implementation design is underway for the 500 kV transmission lines, Peace Canyon 500 kV Gas Insulated Substation and Site C substation. The next Technical Advisory Board meeting has been scheduled for the week of April 25, 2016.

1.2.4.2 Construction

Refer to [Appendix F](#) for the full preliminary construction schedule.

North (Left) Bank Site Preparation

Key contract scope for North Bank Site Preparation includes constructing approximately 7 km of access roads and excavation of approximately 2 million cubic metres of material.

- Construction of the North Bank Access Road was suspended due to winter ground conditions at the onset of December. Regional snow accumulation commenced December 3, 2015. Foundation work for North Bank Access Road Proprietary Structure is scheduled to commence in January 2016 and the road will be passable for the Main Civil Works contractor. Although this task will be completed after our expected completion date, it will not impact the critical path;
- In River Work excavations commenced on October 14, 2015. The forecasted completion date for the North Bridge Approach has been pushed back

1 approximately 32 days (to February 2, 2016) which does not currently impact the
2 schedule for the Peace River Construction Bridge. This task is progressing to the
3 new anticipated date;

- 4 • River Road embankment construction commenced from both west and east
5 approaches. River Road Zone A embankment completion is progressing according
6 to plan;
- 7 • Approximately 218 of 220 hectares have been cleared on the North Bank and
8 clearing is progressing according to plan; and
- 9 • Stage 1 of Left Bank Excavation (approximately 1.37 million cubic meters) has
10 been substantially completed with surplus material not suitable for construction
11 purpose relocated to fill. This is progressing according to plan.

12 ***South (Right) Bank Site Preparation***

13 South Bank site preparation work has commenced in September 2015 and includes
14 vegetation clearing, construction of new access roads, a temporary substation pad, and
15 a new rail siding.

- 16 • About 590 of 620 hectares have been cleared on the South Bank and progressing
17 ahead of plan;
- 18 • The temporary Moberly River Bridge was installed;
- 19 • The new Septimus rail siding was not completed to final elevation due to winter
20 weather. Work will resume spring 2016 and there is currently no anticipated
21 consequence of delay to the Main Civil Works Contractor at this time;
- 22 • Phase 1 of the Septimus access roads have been completed to subgrade. Work to
23 resume spring 2016 and is progressing according to plan;
- 24 • Temporary Substation pad has been completed to final grade on schedule and
25 construction of temporary substation pad access roads to final grade will continue

1 in 2016. In-service date for the Temporary Substation is anticipated for July 2016
2 and is progressing according to plan; and

- 3 • Peace River Construction Bridge commenced construction and one of
4 two abutments, three of 17 piers and two of 18 spans have been installed. Peace
5 River Construction Bridge is on schedule for a March 31, 2016 completion date.

6 ***Worker Accommodation***

7 Full contract was signed in September 2015.

- 8 • Site grading substantially completed;
- 9 • Piling for dormitories and core completed December 2015;
- 10 • A temporary 300 person work camp commenced partial occupancy
11 September 29, 2015 and full occupancy in October 2015; and
- 12 • Crane setting of Permanent (Main) Camp Phase 1 dormitory structures completed
13 December 4, 2015. Additional work such as electrical, plumbing, mechanical,
14 telecommunications, etc. is in progress for scheduled Phase 1 In-Service date of
15 February 29, 2016.

16 ***Ministry of Transportation and Infrastructure Public Road Upgrades***

17 The Ministry of Transportation and Infrastructure's contractor, Al Simms and Sons, was
18 able to complete the upgrading of 269 Road (0.9 km) including paving prior to winter
19 shutdown. The Contractor also commenced work on 240 Road (1.5 km). Road
20 widening, drainage improvements and road base construction were completed on
21 November 18, 2015, prior to winter shutdown. The remaining works on 240 Road will be
22 completed in late spring 2016.

23 ***Main Civil Works***

24 The Main Civil Works contract was signed on December 18, 2015. The contractor is
25 Peace River Hydro Partners, a partnership between ACCIONA Infrastructure Canada
26 Inc., Samsung C&T Canada Ltd, and Petrowest Corporation. Peace River Hydro

1 Partners are planning to mobilize to site in February 2016. The scope of the Main Civil
 2 Works contract is described in [Table 5](#).

3 **Table 5 Scope of Main Civil Works Contract**

Component	Description
Diversion works	Two approximately 11 metre diameter concrete-lined tunnels approximately 750 metres in length.
Excavation and bank stabilization	Approximately 26 million cubic metres of overburden and rock excavation.
Relocation	Relocation of surplus excavated material (including management of discharges).
Dams and Cofferdams	A zoned earth embankment 1,050 metres long and 60 metres above the present riverbed and stage 1 and 2 cofferdams.
Roller Compacted Concrete	Buttress 800 metres long with 2 million cubic metres of concrete.

4 **Quality Management**

5 Implementation and monitoring of Quality Control and Quality Assurance Plans are
 6 required of all contractors. [Table 6](#) below identifies quality management nonconformity
 7 instances during the quarter ending December 31, 2015.

8 **Table 6 Quality Management Non-Conformity Report Metrics**

Contract	Contractor	Reported this Period	Closed this Period	Reported to Date	Closed to Date
North Bank Site Preparation	Morgan Construction & Environmental	2*	3	4	3
South Bank Site Preparation	Duz Cho Construction	0	N/A	0	N/A
Peace River Construction Bridge	Saulteau Ruskin	1**	1	1	1

10 * The two nonconformity incidences reported were width of underdrain trench excavation (open) and ditch
 11 excavation depths (closed).

12 ** The one nonconformity reported was galvanized bolts and couplers in contact with unpainted girder (closed).

1 **1.2.5 Safety**

2 There has been no Level 1 or 2 incidents at the construction site in this reporting period.
 3 [Table 7](#) below identifies the project safety metrics during the quarter ending
 4 December 31, 2015.

5 **Table 7 Safety Metrics**

	Reported this Period	Reported since Inception
Fatality & Serious Injury ¹	0	0
Severity (number of calendar days lost due to injury per 200,000 hours worked)	0	2*
Lost Time Injury Frequency (number of injuries resulting in lost time per 200,000 hours worked)	2	2*
Contractor near miss reports	13	23
Lost time incidents	0	2
Equipment/property damage reports**	10	19

6 * Complete information not provided by the contractors

7 ** Types of equipment and property damage include vehicle damage, minor electrical fire damage, etc.

8 Of the contractor near miss reports, 85 per cent were Level 3 type (lowest severity).

9 **1.2.6 Environment**

10 **1.2.6.1 Mitigation, Monitoring and Management Plans**

11 In accordance with Environmental Assessment Certificate conditions, environmental
 12 management, mitigation and monitoring plans have been developed. Draft plans were
 13 submitted to regulators, local governments and potentially affected Aboriginal groups.
 14 Comments were incorporated into the final plans, which were submitted on
 15 June 5, 2015.

16 Additional plans are in the development process, as required by Environmental
 17 Assessment Certificate conditions. The Fish and Fish Habitat Monitoring and Follow-up
 18 Program and the Agriculture Monitoring and Follow-up program were submitted to the
 19 regulators in October 2015.

¹ Excludes health events unrelated to work standards.

1 Overall, a compliance database has been developed to monitor and track compliance
2 with all Environmental Assessment and permit conditions. The database is undergoing
3 quality assurance review and supporting evidence and data is being compiled to
4 support future reviews and provide regular reporting.

5 During the reporting period, construction of a temporary causeway was initiated outside
6 of the planned location. BC Hydro issued a Stop Work order and notified regulatory
7 agencies. The work location was corrected, no environmental damages are identified,
8 and the area is within the overall footprint of the permanent dam construction footprint.
9 The Department of Fisheries & Oceans issued a warning letter after conducting an
10 investigation.

11 **1.2.6.2 Environmental Compliance Inspections**

12 Inspectors from Environmental Assessment Office, Canadian Environmental
13 Assessment Agency and Forest, Land and Natural Resource Operations attended a two
14 day inspection of Site C construction in December 2015. A draft inspection report will be
15 available in the fourth quarter of F2016.

16 Inspections are expected to take place twice per year. In addition, independent
17 environmental monitors, contractor and BC Hydro monitors are conducting compliance
18 checks on an ongoing basis.

19 **1.2.6.3 Heritage**

20 In accordance with a number of Environmental Assessment Conditions and the Federal
21 Decision Statement, the Site C Heritage Management Resource Plan addresses the
22 measures that will be used to mitigate the adverse effects of the Project on heritage
23 resources. The 2015 Heritage Work Plan was completed in October 2015, on schedule.
24 The work included archaeological impact assessments and systematic data recovery at
25 known heritage sites in the Project Area Zone in accordance with *BC Heritage*
26 *Conservation Act* requirements.

1 In addition, where known archaeological sites were altered through construction
2 activities and where required by the *Heritage Conservation Act* Site Alteration Permit,
3 mitigation involving concurrent monitoring or surface inspections of known archaeology
4 sites was performed.

5 **1.2.6.4 Stakeholder Consultation for Agricultural Mitigation and**
6 **Compensation Plan**

7 Agricultural stakeholder consultation is in progress in order to address Environmental
8 Assessment Certificate Condition 30 requirements and to support the development of
9 the Agriculture Mitigation and Compensation Plan. BC Hydro has established a
10 Consultation Steering Committee comprised of staff from BC Hydro, the Ministry of
11 Agriculture, and the Ministry of Energy and Mines to guide consultation. A discussion
12 guide and feedback form was developed and distributed to include information items
13 and consultation topics that will inform stakeholders and request feedback on the
14 proposed framework for the Agriculture Mitigation and Compensation Plan Framework,
15 and proposed options for the structure of the \$20 million Agricultural Compensation
16 Fund, including governance, eligibility criteria, and payment stream options.

17 The consultation period is planned for November 2015 to the end of January 2016 to
18 accommodate the seasonal availability of farmers and the agricultural industry. The first
19 meeting was held in December 2015 and was well attended. Participants invited to
20 consultation meetings include: Regional agricultural associations; horticulture
21 stakeholders; regional governments; agencies; research and educational organizations;
22 affected agriculture land owners and tenure holders, and First Nations groups.

23 Following the consultation period, a Consultation Summary Report and Consideration
24 Memo will be produced documenting input received from agricultural stakeholders
25 during the consultation period and how it will be considered in the development of the
26 Agriculture Mitigation and Compensation Plan framework, and in the subsequent
27 preparation of the draft and final plan.

1 **1.2.7 Employment**

2 Contractors submit monthly workforce data electronically to BC Hydro. [Table 8](#) shows a
3 snapshot of the number of workers for this quarter by month.

4 **Table 8 Site C Jobs Snapshot**

Month	Number of B.C. Workers*	Number of Total Workers*
October 2015	457	641
November 2015	314	482
December 2015	345	518

5 * Data is subject to change based on revisions received from the contractors

6 Refer to [Appendix E](#) for additional workforce information. The number of workers
7 continues to vary as the construction work progresses. For example, it is expected that
8 some work will not be able to be conducted during the winter months.

9 The Main Civil Works contractor, Peace River Hydro Partners, has indicated that
10 approximately 1,500 workers will be working at the peak of construction. As these job
11 opportunities become available, they will be posted on the WorkBC website as well as
12 on the local Fort St. John’s WorkBC Employment Centre’s website (Employment
13 Connections).

14 BC Hydro will continue to work with the contractors on site to facilitate reporting of
15 workforce information such as the types of jobs, number of apprentices, and the
16 diversity of their workforce. Some preliminary data is available but we anticipate being in
17 a position to more thoroughly report on these additional categories of information as the
18 construction progresses and the size of the work force increases.

19 **1.2.8 Community Engagement & Communication**

20 **1.2.8.1 Local Government Liaison**

21 BC Hydro concluded community measures agreements with the District of Taylor
22 (January 2014) and the District of Chetwynd (January 2013). To enable implementation
23 of these agreements, BC Hydro has ongoing meetings and correspondence with senior

1 staff from the District of Taylor and the District of Chetwynd to review the status of
2 implementation of the measures in their respective community measures agreements
3 and provided each community with a status update.

4 Final discussions are underway with the City of Fort St. John to achieve a legal
5 agreement addressing community mitigation measures. Negotiations are also
6 continuing with the District of Hudson’s Hope and the Peace River Regional District with
7 respect to a community measures agreement for mitigation during construction. A
8 separate Legacy Benefit Agreement was reached with the Peace River Regional District
9 in 2014 that will provide legacy benefit payments for 70 years once the Project is
10 operational.

11 **1.2.8.2 Business Liaison and Outreach**

12 BC Hydro along with the BC Chamber of Commerce jointly hosted job fairs and
13 business-to-business networking sessions during the week of October 5, 2015 in
14 Tumbler Ridge, Chetwynd and Fort St. John. Contractors attending included ATCO,
15 Morgan and Sauteau Securiguard, and partners include the BC Chamber and local
16 Chambers of Commerce, Ministry of Jobs, Tourism & Skills Training, WorkBC, Northern
17 Lights College and Industry Training Authority. There was a large interest in the region,
18 as over 1,000 job seekers attended the three job fairs and 214 businesses participated
19 in the business-to-business networking sessions. [Table 9](#) shows the breakdown of the
20 number of job fair attendees by location.

21 **Table 9 Site C Job Fairs**

Job Fair Location	Number of Attendees
Tumbler Ridge – October 5, 2015	228
Chetwynd – October 6, 2015	249
Fort St. John – October 8, 2015	535
Total Attendees	1,012

22 Additional Business-to-Business Networking sessions are planned during the weeks of
23 January 25 to 27, 2016 and February 2 to 3, 2016 with Job Fairs following in late
24 February and early March.

1.2.8.3 Community Relations and Consultation

BC Hydro continued to implement its construction communications program during the quarter. Biweekly Construction Bulletins were issued throughout this period. With construction activities increasing, there was an increase in public enquiries during the quarter. In total, BC Hydro received 996 public enquiries between October and December 2015, up from 622 the previous quarter. The majority of these enquiries continued to be about business and job opportunities, although there were also construction impact concerns from local residents. [Table 10](#) shows the breakdown of some of the most common enquiry types.

Table 10 Public Enquiries Breakdown

Enquiry Type	October	November	December
Job Opportunities	226	244	221
Business Opportunities	76	65	78
Construction Impact	16	13	2

* This table is a sample of enquiry types and does not include all enquiry types received.

A new online feedback form was added to the Site C website to provide an additional avenue for people to provide feedback, complaints or ask questions.

1.2.8.4 Communications and Government Relations

During the reporting period there was a total of 449 media articles, compared to 209 stories in the previous quarter. Key communications activities included:

- On November 3, 2015 BC Hydro announced the milestone of 100 days of construction. This included a news release with key facts about construction, as well as a four page newsletter on construction activities. This was followed by a local media tour of the construction site;
- On November 23, 2015 BC Hydro announced a \$200,000 donation to the Salvation Army as part of Site C mitigation measures; and
- On November 26, 2015 BC Hydro announced it had selected a preferred proponent for the main civil works contract.

1 On December 21, 2015 BC Hydro announced that it had concluded a contract for main
2 civil works with Peace River Hydro Partners

3 **1.2.8.5 Housing Plan and Housing Monitoring and Follow-Up Program**

4 BC Hydro has established Memorandum of Understanding agreements with the
5 following three organisations to support the provision of emergency or transitional
6 housing:

- 7 • \$25,000 to Sky's Place, a second stage housing program for women with children
8 who are leaving abusive relationships;
- 9 • \$25,000 to the Meaope Transition House for Women that provides a 24-hour safe
10 and secure shelter for women who are victims of violence or abuse, and their
11 children; and
- 12 • \$200,000 to the Salvation Army Northern Centre of Hope to support shelter and
13 transitional beds.

14 These agreements commit a total of \$250,000 to support emergency or transitional
15 housing providers in the City of Fort St. John. Once funds are transferred, BC Hydro will
16 have addressed Measure 5 of the Housing Plan: Emergency or Transitional Housing
17 Provider Contribution and Condition 48 of the Environmental Assessment Certificate.

18 In accordance with Environmental Assessment Certificate Condition 48, BC Hydro will
19 expand affordable rental housing supply in Fort St John by building 50 rental units to be
20 owned and operated by BC Housing and with 40 units to be used by Site C workers
21 until the project construction is complete. Upon completion of Site C, the 40 worker
22 housing units will be made available to low and moderate income households.

23 In April 2015, BC Housing completed a Request for Information seeking to understand
24 market capacity for construction of energy efficient housing and availability of a suitable
25 site for 50 units. BC Housing reviewed the findings of the Request for Information with

1 BC Hydro and stated they were satisfied that there is sufficient capacity in the market
2 for construction of an R2000 energy efficient building and adequate available sites.

3 **1.2.8.6 Labour and Training Plan**

4 In accordance with Environmental Assessment Condition 53, BC Hydro is to provide
5 additional daycare spaces in Fort St. John to increase spousal participation in the labour
6 market. BC Hydro and School District 60 have agreed to pursue negotiations toward a
7 contribution agreement for BC Hydro to provide capital funding for a new child care
8 facility in the new elementary school to be built in Fort St John. As of
9 December 31, 2015, negotiations are on track.

10 **1.2.8.7 Health Care Services Plan and Emergency Service Plan**

11 BC Hydro continues to work with the Northern Health Authority on the development of
12 scope for a Project Health Clinic service provider. In addition, the Project team has met
13 with B.C. Ambulance Service local staff to provide information about the Project's plan
14 for first aid and emergency transport of workers and receive feedback on plans for
15 health care services for Project workers.

16 **1.2.8.8 Properties Acquisitions**

17 In this reporting period, all properties agreements required for upgrades to the
18 BC Hydro distribution lines were finalized. As of December 31, 2015, BC Hydro has the
19 property interests in the dam site area it requires to continue with construction work
20 planned for 2016. Discussions have been initiated and are on track with owners, and/or
21 their legal counsel, who own land that will be impacted by the conveyor system to the
22 dam site area (three land holdings), the transmission line (two land holdings), and the
23 Cache Creek highway realignment (eight land holdings).

24 **1.3 Key Procurement and Contract Developments**

25 The Project procurement approach was approved by the Board of Directors in
26 June 2012 for the construction of the Project. The procurement approach defined the

1 scope of the major contracts and their delivery models, as summarized in [Table 11](#)
 2 below.

3 **Table 11 Major Project Contracts and Delivery Models**

Component	Contract	Procurement Model	Anticipated Timing
Worker Accommodation	Worker Accommodation and site services contract	Design-Build-Finance-Operate-Maintain	Completed
Earthworks	Site Preparation contracts	Predominantly Design-Bid-Build	Various, through F2016
	Main Civil Works contract	Design-Bid-Build	Contract Award: Q3 F2016
Reservoir Clearing	Multiple reservoir clearing contracts to be awarded over 7 to 8 years	Design-Bid-Build	One Agreement awarded for the Lower Reservoir
Generating Station and Spillways	Turbines and Generators contract	Design-Build	Contract Award: Q4 F2016
	Generating Station and Spillways Civil contract	Design-Bid-Build/Design-Build	Commence: Q1 F2017
	Hydromechanical Equipment contract	Supply Contract	Commence: Q1 F2017
	Powertrain Balance of Plant Equipment Supply	Supply Contracts	Commence: 2017 – 2018
	Completion Contract (Powertrain Balance of Plant Equipment Installation)	Install Contract	Commence: 2019
Electrical and Transmission Infrastructure	Transmission Lines contract	Design-Bid-Build	Various, through F2017
	Site C substation contract	Design-Bid-Build	F2017
	Peace Canyon Substation upgrade contract	Design-Build	Contract Award: Q1 F2017
Highway 29 Realignment	Design-Bid-Build in partnership with BC Ministry of Transportation and Infrastructure with anticipated award of the first contracts in 2017 with subsequent contract being awarded through 2018 - 2019.		

4 **1.3.1 List of Major Contracts Awarded (Excess of \$50 million)**

5 Since inception of the Project, three major contracts (i.e., greater than \$50 million in
 6 value) have been awarded: Worker Accommodation, Site Preparation: North Bank, and
 7 Main Civil Works. The contracts were procured through a public competitive process
 8 and awarded based on a rigorous evaluation process within the budget established for
 9 each contract. A list of contracts in excess of \$50 million is shown in [Table 12](#) below.

1 **Table 12 Major Project Contracts Awarded**

Work Package	Contract Value	Current Status
Site Preparation: North Bank (\$ million)	52	Contract executed July 2015.
Worker Accommodation (\$ million)	464	Contract executed September 2015
Main Civil Works (\$ billion)	1.75	Contract executed December 2015

2 The Turbine and Generator contract is expected to be awarded in the next three months
 3 and it is currently on track. This work package is being procured through a public
 4 competitive process and is currently under evaluation. In 2016, procurement of two
 5 major work packages will commence: Generating Station and Spillways Civil contract
 6 and Hydromechanical equipment. Preparations for the procurement of these work
 7 packages are currently on track.

8 **1.3.2 Large Contracts to Date (Excess of \$10 million)**

9 BC Hydro has provided a table in [Appendix B](#) which shows the breakdown to date of the
 10 contracts awarded in excess of \$10 million and cumulative variances.

11 **1.3.3 Contract Management**

12 **1.3.3.1 Material Changes to the Major Contracts**

13 There have been no material changes to the Major contracts to date.

14 **1.3.3.2 Contingency and Project Reserve Draws**

15 The project is on track to manage budget within the approved amounts including
 16 contingency. The project budget includes contingency of \$794 million in nominal dollars.
 17 There have been no draws on project reserve to date. Refer to [Appendix D](#) for more
 18 detailed information regarding contingency and project reserve draws.

1 **1.4 Plans During Next Six Months**

2 The key milestones for the next six months are listed in [Table 13](#).

3 **Table 13 Key Milestones**

Milestone	Final Investment Decision Plan Date ²	F2017F2019 Service Plan ³	Forecast Date ⁴	Float (Months)	Status ⁵
Leave to Commence for Major Civil Works	February 2016	February 2016	April 2016	2	Delayed*
Peace River Temporary Bridge Complete	May 2016	May 2016	March 2016	2	On Track
Worker Accommodation – Phase One	February 2016	February 2016	February 2016	0	On Track
Award Turbines & Generators Contract	March 2016	March 2016	March 2016	0	On Track
Site Clearing Complete North and South Bank	March 2016	March 2016	March 2016	0	On Track
Ministry of Transportation & Infrastructure: North Bank Roads (240) Work	October 2015	October 2016	September 2016	1	On Track
Ministry of Transportation & Infrastructure: North Bank Roads (271) Work	October 2015	June 2016	June 2016	0	On Track
Site Prep North Bank Complete	February 2016	June 2016	June 2016	0	On Track
Main Civil Works Commence Mobilization to site	September 2016	Mar. 2016	Feb. 2016	1	On Track
Main Civil Works Commence Left Bank Excavations	January 2017	June 2016	April 2016	2	On Track

4 * Main Civil Works Contractor still developing Leave to Commence submittal information to meet required quality.

5 **1.5 Impacts on Other BC Hydro Operations**

6 For the reporting period, there were no material impacts on the generation operation at
7 the GM Shrum and Peace Canyon Dams or on water management at the Williston and
8 Dinosaur reservoirs.

9 **1.6 Site Photographs**

10 Refer to [Appendix A](#) for Site Construction photographs.

² Based on plan at Final Investment Decision, December 2014.

³ Based on BC Hydro F2017-F2019 Service Plan approved in January 2016.

⁴ Based on January Month End Progression.

⁵ Status based on comparison to BC Hydro F2017-F2019 Service Plan.

1 **2 Project Schedule**

2 **2.1 Project In Service Dates**

3 BC Hydro currently shows all in service dates on track per [Table 14](#).

4 **Table 14 Project In-Service Dates**

Description/Status	Financial Investment Decision Planned ISD ⁶	F2017F2019 Service Plan ⁷	Status ⁸ and Comments (e.g., Complete, On Schedule, Delayed, Possibly Delayed, Probable Delayed)
5L5 500kV Transmission Line	October 2020	September 2020	On Track
Site C Substation	November 2020	October 2020	On Track
5L6 500kV Transmission Line	July 2023	September 2023	On Track
Unit 1 (First Power)	December 2023	December 2023	On Track
Unit 2	February 2024	February 2024	On Track
Unit 3	May 2024	May 2024	On Track
Unit 4	July 2024	July 2024	On Track
Unit 5	September 2024	September 2024	On Track
Unit 6	November 2024	November 2024	On Track

5 The approved Final Investment Decision schedule involved the first unit coming into
 6 service in December 2023. The Project has advanced implementation phase activities
 7 to mitigate schedule risk.

⁶ Based on plan at Final Investment Decision, December 2014.

⁷ Based on BC Hydro F2017-F2019 Service Plan approved in January 2016.

⁸ Status based on comparison to BC Hydro F2017-F2019 Service Plan.

3 Project Costs and Financing

3.1 Project Budget Summary

[Table 15](#) below presents the overall Project Budget, based on the Final Investment Decision (December 2014), represented in nominal dollars.

Table 15 Project Budget Summary

Description	Capital Amount (Nominal \$ million) *
Dam, Power Facilities, and Associated Structures	4,120
Offsite Works, Management and Services	1,575
Total Direct Construction Cost	5,695
Indirect Costs	1,235
Total Construction and Development Cost	6,930
Interest During Construction	1,405
Project Cost, before Treasury Board Reserve	8,335
Treasury Board Reserve	440
Total Project Cost	8,775

* Budget values are rounded to the nearest \$5 million and include allocations of contingency.

3.2 Project Expenditure Summary

[Table 16](#) provides a summary of the Final Investment Decision approved total Project cost, the current forecast total Project cost and the variance between the two; and the plan to date amounts, the actual costs to date and the variance between the two.

Table 16 Total Project Expenditure Summary (\$ million Nominal) Compared to Final Investment Decision

Description	Final investment Decision	Forecast	Forecast vs Final Investment Decision Approved Budget	Final Investment Decision Plan to Date	Actuals to Date	Variance
Total Project Costs ¹	8,335	8,335		578	694	(116)
Treasury Board Reserve	440	440				
Authorized Project Cost	8,775	8,775		578	694	(116)

1 [Table 17](#) provides a summary of the F2017-F2019 Service Plan *total* Project cost, the
 2 current forecast *total* Project cost and the variance between the two; and the plan *to*
 3 *date* amounts, the actual costs *to date* and the variance between the two.

4 **Table 17 Total Project Expenditure Summary (\$ million**
 5 **Nominal) Compared to F2017F2019 Service**
 6 **Plan**

Description	F2017F2019 Service Plan	Forecast	Forecast vs F2017F201 9 Service Plan	F2017F2019 Service Plan to Date	Actuals to Date	Variance
Total Project Costs ¹	8,335	\$8,335		734	694	40
Treasury Board Reserve	440	440				
Authorized Project Cost	8,775	8,775		734	694	40

7 There is no variance between the total project costs approved in the Final Investment
 8 Decision and the total project costs approved in the F2017-F2019 Service Plan.
 9 Variances between the plan to date amounts occur due to differences in the timing of
 10 project implementation activities.

11 Variances are primarily due to later than planned signing of agreements with some First
 12 Nations and Fort St. John resulting in lower than planned spends on Mitigation and
 13 Compensation expenditures. Further explanations are in [Appendix D](#).

14 **3.3 Internal Project Financing versus External Borrowings To Date**

15 To date, all project funding has been from internal borrowings. There have been several
 16 discussions with BC Hydro's Board, the Debt Management Branch, the past Deputy
 17 Minister of Finance and Treasury Board Staff on a debt hedging strategy for BC Hydro's
 18 borrowing requirements (which include expenditures related to Site C) over a ten-year
 19 period. In addition to portfolio adjustments that are currently being implemented
 20 whereby BC Hydro is reducing its exposure to variable rate debt and increasing its
 21 issuance of fixed rate debt, a strategy has been developed that recommends hedging

1 50 per cent of BC Hydro’s future forecasted borrowing requirements from F2017-F2024
2 through the use of derivative contracts. An application was made on
3 December 16, 2015 to the Commission for a new Debt Hedging Regulatory Account
4 that will capture the gains and losses related to the hedging of future debt issuance.

5 **4 Material Project Risks**

6 This section describes the material Project risks that have high residual exposure to
7 BC Hydro. Commercially sensitive numbers and content, and/or content that could be
8 seen to prejudice BC Hydro’s negotiating position, are redacted in the public version.
9 Note that the residual consequence and residual probability levels are qualitative
10 assessments. Refer to [Table 18](#) for a list of risks.

11 **Table 18 Material Project Risks**

Risk Event/Description	Risk and Response Summary	Trend in Risk Exposure ⁹
Delay to Permitting	Permits and licences are still required for several portions of construction activity. Delays to these permits and licences will result in delays to the associated construction work. BC Hydro continues to consult with federal and provincial authorities, local government and First Nations to mitigate this risk. Awaiting the outcome of the judicial review of permits as described below. If BC Hydro is unsuccessful, this could result in a delay to the work underway and claims arising.	➔
Litigation	Refer to section 1.2.2 and Table 2 for status of judicial reviews related to environmental approvals and permits. The BC Building Trades union filed a lawsuit regarding the labour approach to Site C. A Memorandum of Understanding (refer to Labour Relations below) was entered into with certain unions. Resolution of legal action is not a term of the MOU but no further steps have been taken in the litigation. There is a potential for additional legal proceedings. If any are successful, there may be delays.	➔

⁹ Arrow direction represents the change since the last Quarterly Progress Update report.

Risk Event/Description	Risk and Response Summary	Trend in Risk Exposure ⁹
First Nations	<p>BC Hydro has executed a Project Agreement with one First Nation (Alberta); has achieved substantive agreement on another Project Agreement; and has reached agreements with four First Nations on Impact Benefit Agreement term sheets and Impact Benefit Agreement finalization is in progress. Impact Benefit Agreements with First Nations provide First Nations with Project benefits and mitigate the risk of legal challenges.</p>	↓
Market response to procurement	<p>If strong competition does not occur during procurement, there could be higher premiums, mark ups and overall prices on labour and materials. Risk has been mitigated via market soundings, robust RFQ process, honorariums for successful bidders, etc. All three major procurement processes initiated to date (Worker Accommodation, Main Civil Works, Turbine and Generators) have had positive responses with one procurement now in the Request for Proposal evaluation stage and two contracts awarded. No major procurement has been completed over the past quarter, and therefore risk exposure is unchanged. The next major procurement milestones are expected in 2016.</p> <p>Market response risk will continue to be monitored and could be impacted if the project construction schedule is delayed significantly.</p>	→
Labour Relations & Stability	<p>BC Hydro is using an inclusive labour approach with a managed open site. This allows for participation by all union and non-union labour groups and allows access to the largest pool of skilled and experienced labour.</p> <p>BC Hydro entered into a Memorandum of Understanding with certain BC Building Trades unions to achieve labour stability and a mix of labour representation on site, including building trades unions. In the Main Civil Works contract BC Hydro provided greater weight on bids with a mix of labour representation to the extent that it adds to labour stability. All major contracts contain no strike, no lockout, and no raiding provisions.</p> <p>BC Hydro has noted active organization attempts by several labour organizations regarding work underway at the project site. This activity creates a risk of a work disruption or complaints to the Labour Relations Board. BC Hydro is managing this risk through consistent treatment of all labour organizations and ensuring that organization activities do not occur on the project site itself except as provided for under the Labour Relations Code.</p> <p>One of the partners in the Main Civil Works contract has a significant local presence and has made public statement regarding ensuring local and BC residents are given hiring priority.</p>	→

Risk Event/Description	Risk and Response Summary	Trend in Risk Exposure ⁹
Geotechnical risks	<p>Key Geotechnical risks include unexpected shears encountered during construction; deeper than expected relaxation joints; bedding planes worse than expected; larger than expected deterioration of shale bedrock once exposed during construction; and Rock Rebound/Swell.</p> <p>Current strategies to mitigate geotechnical risks include:</p> <ul style="list-style-type: none"> • Complete field investigations to aid in the identification of shears, relaxation joints, and bedding planes; • Use of conservative design principles for the slope of excavation surfaces, grout curtains, and shear strength assumptions; • Transfer some degree of ground condition risks to the Contractor; • Design contracts which allow the contractor to respond to unexpected ground conditions (potentially through pre-agreed pricing); and • Conduct field-scale trials to determine the response when shale bedrock is exposed to the elements. <p>These risks have not changed substantially since Final Investment Decision as there has not been sufficient excavation to date. Once the MCW contract is underway and beginning excavation BC Hydro will have additional information about this risk.</p>	→
Construction cost – labour	<p>Potential cost increases could arise if there is competition with other projects for labour resources, labour instability, or changing workforce demographics. BC Hydro is partially mitigating this risk through regional job fairs to increase local participation and investments in skills training (\$1.5 million invested to date). This risk is also partially mitigated by consideration of labour stability during contractor selection.</p> <p>BC Hydro has now awarded the Main Civil Works contract, which fixes labour rates for the first two years. Labour rates under this contract are consistent with BC Hydro estimating expectations.</p> <p>Based on current market conditions in the infrastructure and energy sector BC Hydro believes that the risk of unexpectedly high labour prices has decreased. There remains the potential for market conditions to shift in the future and this risk to increase.</p>	↓

Risk Event/Description	Risk and Response Summary	Trend in Risk Exposure ⁹
Construction cost – commodities and equipment	<p>Potential cost increases could arise if market prices for key commodities and equipment increase, or if overall market activity results in higher contractor profit margins.</p> <p>BC Hydro has completed procurement for several contracts associated with early works, Worker Accommodation, and Main Civil Works and it does not see early indications on market price pressures at this point. More information will be available upon conclusion of other major contracts such as Turbine and Generators.</p> <p>BCH retains exposure to fuel prices (generally diesel), which have decreased compared to prices in the budget. Fuel prices may increase in the future due to global market forces. BC Hydro will consider the potential to hedge these prices, where appropriate.</p> <p>Canada has applied a duty to rebar from specific countries that may add approximately \$20 million in cost to the Site C project. This duty was upheld by a Trade Tribunal decision rendered in January 2016. Any incremental costs relating to the Trade Tribunal decision would be accommodated through allocations from Project Contingency or Treasury Board reserve, as appropriate.</p> <p>Based on current market conditions in the infrastructure and energy sector BC Hydro believes that the risk of unexpectedly high market prices has decreased since December 2014. There remains the potential for market conditions to shift in the future and this risk to increase.</p>	→
Construction execution.	<p>Contractors may be unable to execute successfully on scope of contract with resulting costs to BC Hydro. Mitigation is via:</p> <ul style="list-style-type: none"> • Robust procurement processes to determine whether contractors have the capability to undertake their scope of work; • A cross-functional construction readiness review to confirm contractor and BC Hydro readiness before authorizing the start on any specific scope of work; and • BC Hydro increased on site supervision to address recent environmental compliance issues. <p>BC Hydro step-in rights under contracts to allow for correction in the case of contractor failure.</p> <p>BC Hydro will have more information on this risk when the Main Civil Works contractor has deployed to site.</p>	→

Risk Event/Description	Risk and Response Summary	Trend in Risk Exposure ⁹
Foreign exchange	<p>Some of Site C project costs are in foreign currency, and will be affected by fluctuations in the exchange rate between the Canadian Dollar and these foreign currencies. Approximately 20% of the Site C capital costs are based on foreign currency. The Canadian dollar has weakened significantly compared to the US dollar since the 2014 capital cost estimate was developed, and as a result this risk has increased. This is partially mitigated through contractor flexibility around sourcing of material, resulting in an exposure to a basket of currencies rather than solely the US dollar.</p> <p>This risk will be further mitigated through BC Hydro contract design that allocates the majority of foreign exchange risk to the contractors. As a result, upon receipt of pricing for each contract foreign exchange risk will decrease.</p>	→
Interest rate variability	<p>Interest during construction costs will be affected by fluctuations in market interest rates. Currently market interest rates are expected to be lower than assumed in BC Hydro's budget.</p> <p>There have been several discussions with BC Hydro's board, the Debt Management Branch, the past Deputy Minister of Finance and Treasury Board Staff on a debt hedging strategy for BC Hydro's borrowing requirements (which include expenditures related to Site C) over a 10year period. In addition to portfolio adjustments that are currently being implemented whereby BC Hydro is reducing its exposure to variable rate debt and increasing its issuance of fixed rate debt, a strategy has been developed that recommends hedging 50% of BC Hydro's future forecasted borrowing requirements from F2017F2024 through the use of derivative contracts. An application to the Commission for a new Debt Hedging Regulatory Account that will capture the gains and losses related to the hedging of future debt issuance was filed in December 2016. An oral hearing is scheduled for March 2016.</p>	→

Site C Clean Energy Project

Quarterly Progress Report No. 2

Appendix A

Site Photographs

1
2

Figure A1 **Preparing for Pile Driving for the Construction Bridge**



3
4

Figure A2 **North Bank Site Preparation Looking East Along River Road**



1

Figure A3 Lower Moberly Bridge



2

Figure A4 Worker Camp Under Construction



1

Figure A5 Worker Camp Under Construction



Site C Clean Energy Project

Quarterly Progress Report No. 2

Appendix B

**Summary of Individual Contracts
Exceeding \$10 million**

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Appendix C

Project Progression

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Appendix D

Detailed Project Expenditures

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Appendix E

Workforce Overview

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Appendix F

Preliminary Construction Schedule

1

Table F1 Preliminary Construction Schedule

Construction Activity	2015				2016				2017				2018				2019				2020				2021				2022				2023				2024																			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																
Dam Site Area	2015				2016				2017				2018				2019				2020				2021				2022				2023				2024																			
Clearing: dam site					■																																																			
Access roads near dam site					■				■																																															
Worker accommodation					■				■																																															
Temporary construction bridge					■																																																			
Excavation and material relocation					■				■				■				■				■				■				■				■				■				■															
Cofferdams and diversion tunnels					■				■				■				■				■				■				■				■				■				■				■											
Earthfill dam					■				■				■				■				■				■				■				■				■				■				■											
Roller-compacted-concrete buttress									■				■				■				■				■				■				■				■				■				■											
Generating station and spillways													■				■				■				■				■				■				■				■				■											
Turbines and generators (installation)													■				■				■				■				■				■				■				■				■				■							
Sub-station									■				■				■				■				■				■				■				■				■				■				■							
Viewpoints construction/landscaping					■																																																			
Demobilization and site reclamation																																																								
Roads and Highways	2015				2016				2017				2018				2019				2020				2021				2022				2023				2024																			
Public road improvements																																																								
240 Road					■																																																			
269 Road					■																																																			
271 Road					■																																																			
Old Fort Road					■				■																																															
Highway 29 realignment																																																								
Bear Flat/Cache Creek									■				■				■				■				■				■				■				■				■				■				■							
Halfway River													■				■				■				■				■				■				■				■				■				■				■			
Dry Creek																	■				■				■				■				■				■				■				■				■				■			
Farrell Creek																	■				■				■				■				■				■				■				■				■				■			
Farrell Creek East																	■				■				■				■				■				■				■				■				■				■			
Lynx Creek																	■				■				■				■				■				■				■				■				■				■			
Peace River / Reservoir Area	2015				2016				2017				2018				2019				2020				2021				2022				2023				2024																			
Public Safety Buoys					■				■				■				■				■				■				■				■				■				■				■				■							
Clearing: east end of reservoir					■																																																			
Clearing: lower reservoir to Cache Creek									■																																															
Clearing: Cache Creek to Halfway River													■				■				■				■				■				■				■				■				■				■							
Clearing: Halfway River to Hudson's Hope																	■				■				■				■				■				■				■				■				■							
River diversion																	■				■				■				■				■				■				■				■				■							
Reservoir filling and operations																																																								
Transmission Lines	2015				2016				2017				2018				2019				2020				2021				2022				2023				2024																			
Transmission line construction									■				■				■				■				■				■				■				■				■				■											
Extension of Peace Canyon switchyard									■				■				■				■				■				■				■				■				■				■											
Hudson's Hope Shoreline Protection	2015				2016				2017				2018				2019				2020				2021				2022				2023				2024																			
DA Thomas Road upgrades									■				■				■				■				■				■				■				■				■				■											
Hudson's Hope Berm																	■				■				■				■				■				■				■				■											
Production & Transport of Materials	2015				2016				2017				2018				2019				2020				2021				2022				2023				2024																			
85 th Avenue Industrial Lands									■				■				■				■				■				■				■				■				■				■											
Del Rio Pit					■				■				■				■				■				■				■				■				■				■				■				■							
Portage Mountain Quarry									■				■				■				■				■				■				■				■				■				■				■							
West Pine Quarry					■				■				■				■				■				■				■				■				■				■				■				■							
Wuthrich Quarry					■				■				■				■				■				■				■				■				■				■				■				■							

The construction schedule is indicative only and subject to change. The purpose of the schedule is to illustrate the general sequence of construction activities, but the dates and schedule may change.

2 Schedule as of July 2015.