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October 26, 2016

British Columbia Utilities Commission
6th Floor, 900 Howe Street
Vancouver, BC
V6Z 2N3

Attention: Ms. Laurel Ross, Acting Commission Secretary and Director

Dear Ms. Ross:

Re: FortisBC Inc. (FBC)

Project No. 3698887

**Multi-Year Performance Based Ratemaking Plan for 2014 through 2019
approved by British Columbia Utilities Commission (BCUC or the Commission)
Order G-139-14 – Annual Review for 2017 Rates (the Application)**

Response to Workshop Undertakings

In accordance with Commission Order G-123-16 setting out the Regulatory Timetable for review of the Application, FBC respectfully attaches its responses to the three undertakings from the Workshop held on October 12, 2016.

In addition, on October 14, 2016, MoveUP submitted a request for additional undertakings that it was not able to pose during the Workshop. FBC respectfully attaches its responses to MoveUP's four additional undertakings.

FBC would also like to note several corrections to the Transcript, Volume 1 for the record.

- Page 7, line 25, "indicates" should read "indicators"
- Page 26, line 6, "hard flash" should read "arc flash"
- Page 30, line 5, "in the water here" should read "in the photo here"
- Page 35, line 4, "inner connections" should read "interconnections"

FBC also would like to clarify an aspect of the proceeding record related to questions from Mr. Weafer on behalf of the Commercial Energy Consumers Association of British Columbia and the British Columbia Municipal Electric Utilities related to the City of Grand Forks (the City) potentially building a new substation. FBC confirms speaking with the City in July 2016 about how the preferred option for the Ruckles Rebuild Project considered the City's plans to voltage convert over the long term and any potential future plans to convert to a transmission customer. The City confirmed that no decisions had been made with respect to whether it would become a transmission customer and did not have concrete plans with regard to the schedule for continuation of its 4kV to 13kV voltage conversion program. At this time, FBC has not received any request from the City to become a transmission customer but, should the City decide to do so, the process to apply to become a transmission customer and then build their own substation would take approximately 3-5 years.

If further information is required, please contact the undersigned.

Sincerely,

FORTISBC INC.

Original signed:

Diane Roy

Attachments

cc (email only): Registered Parties

FortisBC Inc.
Multi-Year PBR 2014-2019 Annual Review of 2017 Rates
Workshop October 12, 2016

UNDERTAKING No. 1

WORKSHOP DATE: October 12, 2016

TRANSCRIPT

REFERENCE: Volume 1, Page 39, Line 20 to Page 47, Line 8

REQUESTOR: Mr. Weafer (CEC)

QUESTION: Review the Nelson Hydro actual costs to build a substation five years ago, and provide comments on the differences on a high level basis between the FBC's cost estimate for the Ruckles Substation.

RESPONSE:

The estimated cost of the FBC Ruckles Rebuild Project (\$7.6 million) is \$4.1 million higher than the actual cost of the Nelson Hydro Rosemont Substation Rebuild (\$3.5 million) due to significant differences between the projects in scope, civil work, materials and equipment selection and sourcing, and system design, as well as due to the impact of inflation and the exchange rate. While the projects may seem similar at a high level, e.g. they have a similar capacity and number of feeders, they in fact are very different.

The following is a high-level overview of the reasons why the estimated cost of the Ruckles Rebuild Project is higher than the actual costs of the Rosemont Substation Rebuild:

- The Ruckles Rebuild Project requires significantly more civil work than the Rosemont Substation Rebuild in order to address the flood risk posed by the Kettle River, one of the key drivers of the project. FBC estimates that the incremental civil costs associated with raising the elevation of the Ruckles Substation to address the flood risk is approximately \$550 thousand;
- Nelson Hydro purchased a 35 MVA transformer from Taiwan-based Shihlin Electric whereas FBC plans to purchase a 40 MVA transformer from an established North American-based supplier. FBC prefers to use North American-based vendors as they typically provide better support and the transformers are typically of higher quality. As a result of vendor selection, and of the devaluation of the Canadian dollar since 2012/13 (discussed below), FBC estimates that the incremental transformer purchasing costs are approximately \$500 thousand. There might be other cost variances that may result from differences between the transformer specifications but FBC has not assessed further at this time;
- Nelson Hydro installed four 25kV distribution feeders whereas FBC plans to install two 4kV distribution feeders and two 13kV distribution feeders. As a result, FBC must install two step-down transformers (13kV to 4kV) with oil containment

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UNDERTAKING No. 1

and cabling. FBC estimates that the requirement to maintain two sources of supply results in incremental costs of approximately \$500 thousand;

- Nelson Hydro installed indoor metalclad switchgear supplied by General Switchgear and Controls Inc. (GSC) whereas FBC plans to use air-insulated outdoor switchgear (AIS) supplied by Mitsubishi Electric Power Products Inc. (MEPPI).

One of the key drivers for the Ruckles Rebuild Project is to address the high arc flash hazard associated with the existing switchgear at Ruckles Substation. FBC's standard substation design practice is to use AIS switchgear wherever possible due to the decreased arc flash risk, and the improved maintainability and expandability of AIS equipment compared to indoor metalclad switchgear.

FBC prefers the use of MEPPI breakers due to quality and ongoing support considerations. GSC was not considered as a potential supplier as they went into receivership in 2014 and are no longer in business.

For the high voltage 69kV breaker, Nelson Hydro chose Pennsylvania Breakers as their preferred supplier whereas FBC plans to purchase its 69kV breaker from MEPPI. Pennsylvania Breaker was not considered as a potential supplier as they suspended operations in 2014.

FBC estimates that its system design and vendor selection results in an estimated incremental cost of approximately \$150 thousand;

- The footprint of the existing Ruckles Substation area is more than double that of Rosemont Substation (1650 m² vs. 760 m²). Additionally, FBC anticipates higher cabling and conduit costs associated with the use of AIS switchgear instead of indoor switchgear. FBC estimates that the additional grounding, cabling, and conduit results in an estimated incremental cost is approximately \$150 thousand;
- Nelson Hydro was able to completely de-energize the Rosemont Substation in advance of construction whereas FBC will have to maintain supply throughout construction. As a result, there is a considerable amount of staging that is required to facilitate construction. FBC estimates that the requirement to maintain supply during construction results in incremental construction costs of approximately \$250 thousand;
- Nelson Hydro required minimal transmission and distribution reconfiguration, whereas FBC will have to reconfigure the transmission ingress to facilitate construction stages, and will have to reconfigure the distribution egress to add new City of Grand Forks and industrial sawmill interconnections. FBC anticipates that this will result in incremental transmission and distribution reconfiguration costs of approximately \$225 thousand;

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UNDERTAKING No. 1

- Nelson Hydro incurred \$100 thousand for cost of removal whereas FBC estimates the Ruckles Substation cost of removal to be approximately \$290 thousand, a variance of \$190 thousand. This is largely driven by:
 - the proposed removal of two power transformers at Ruckles Substation compared to one power transformer at the Rosemont Substation;
 - the proposed removal of both indoor metalclad switchgear and outdoor switchgear, and associated civil, physical and electrical supporting infrastructure at Ruckles Substation compared to the removal of two outdoor reclosers, and associated civil, physical and electrical supporting infrastructure, at Rosemont Substation; and
 - the proposed demolition of the existing control building at the Ruckles Substation.
- Approximately \$1.05 million of the difference between the actual Nelson Hydro Rosemont Substation Rebuild expenditures and the FBC Ruckles Substation Rebuild is due to contingency (\$800 thousand) and inflation adjustment (\$250 thousand, using 2% annual adjustment).

The variance between the Nelson Hydro Rosemont Substation Rebuild actual expenditures (\$3.5 million) and the estimated project costs of the FBC Ruckles Rebuild Project (\$7.6 million) is \$4.1 million, of which \$3.6 million has been explained by the above analysis.

Further, while FBC is not able to quantify the impact, there may also be a discrepancy due to the devaluation of the Canadian dollar since 2012 / 2013 when the Rosemont Substation was constructed.

FortisBC Inc.
Multi-Year PBR 2014-2019 Annual Review of 2017 Rates
Workshop October 12, 2016

UNDERTAKING No. 2

WORKSHOP DATE: October 12, 2016

TRANSCRIPT

REFERENCE: Volume 1, Page 74, Line 13 to Page 47, Line 8

REQUESTOR: Mr. Hobbs (ICG)

QUESTION: File on the record the Canal Plant Agreement and the Entitlement Adjustment Agreement, if they are public.

RESPONSE:

The Canal Plant Agreement and the Entitlement Adjustment Agreement ("EAA") are attached.

FBC notes that the project does not involve any "design" work of the kind contemplated by section 2.8 of the EAA. The project principally involves refurbishment of the Upper Bonnington Units 1-4 (the "Old Units"), with only some (limited) replacement of components. Accordingly, the requirement set out in section 2.8 of the EAA to co-operate with BC Hydro on any such "design" is not triggered. If, as FBC proceeds to implement the project, it determines that design work is required as contemplated in section 2.8 of the EAA, then FBC will, of course, consult and co-operate with BC Hydro as to any applicable design elements. In any event, FBC will take up with BC Hydro, at all applicable times, any relevant operating issues with respect to implementation of the project including, for example, coordination of the annual Unit outage schedule.

SECOND AMENDED AND RESTATED 2005 CANAL PLANT AGREEMENT

**BRITISH COLUMBIA HYDRO AND POWER AUTHORITY
FORTISBC INC.**

TECK METALS LTD.

**BRILLIANT POWER CORPORATION
BRILLIANT EXPANSION POWER CORPORATION
WANETA EXPANSION LIMITED PARTNERSHIP**

**DATED FOR REFERENCE
NOVEMBER 15, 2011**

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SCHEDULE A ENTITLEMENT CALCULATION, ADJUSTMENT AND RE-DETERMINATION

SCHEDULE B KOOTENAY INTERCONNECTION

SECOND AMENDED AND RESTATED 2005 CANAL PLANT AGREEMENT

THIS AGREEMENT dated for reference the 15th day of November, 2011.

AMONG:

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

("B.C. Hydro")

AND:

FORTISBC INC.

("FortisBC")

AND:

TECK METALS LTD. (formerly Teck Cominco Metals Ltd.)

("Teck")

AND:

BRILLIANT POWER CORPORATION

("BPC")

AND:

BRILLIANT EXPANSION POWER CORPORATION

("BEPC")

AND:

**WANETA EXPANSION LIMITED PARTNERSHIP, by its general partner Waneta Expansion
General Partner Ltd.**

("WELP")

WHEREAS:

A. The Canadian and United States entities under the Columbia River Treaty are required to cooperate to coordinate the operation of the Libby Dam with the hydroelectric plants on the Kootenay River and elsewhere in Canada;

B. For the purposes of implementing the arrangements contemplated in Recital A, B.C. Hydro is the Canadian entity referred to in the Columbia River Treaty;

C. The Canadian entity is also responsible for operating the Duncan Dam to achieve the benefits contemplated in the Columbia River Treaty;

D. B.C. Hydro is for all its purposes an agent of Her Majesty the Queen in Right of the Province of British Columbia (the “**Province**”) as provided in the *Hydro and Power Authority Act*, R.S.B.C. 1996, c. 212;

E. B.C. Hydro, Teck, FortisBC and the Province entered into an agreement comprised by letter dated August 13, 1971, from FortisBC to the Province, as clarified by letter dated August 30, 1971, from the Province to FortisBC, and enclosures therein (the “**1971 Agreement**”);

F. B.C. Hydro, Teck and FortisBC entered into an agreement made as of August 1, 1972 (the “**Original Canal Plant Agreement**”) pursuant to the 1971 Agreement whereby the parties agreed to cooperate in the operation of their available storages and generating facilities in British Columbia for the purpose of obtaining optimum generation from B.C. Hydro’s generation resources and the Plants;

G. The Province entered into an agreement with Teck made as of May 18, 1994 (the “**Benefit Extension Agreement**”) whereby the Province agreed that Teck would continue to receive the benefits of the Original Canal Plant Agreement until December 31, 2035;

H. The Province:

- (a) entered into the Power Asset Sale and Development Agreement made as of May 18, 1994 with Teck (the “**PASDA**”) whereby Teck agreed to sell expansion rights at its Brilliant and Waneta Dams;
- (b) assigned its rights under the PASDA to Columbia Power Corporation, which completed the purchase of the expansion rights from Teck and held such rights for the benefit of itself and Columbia Basin Trust and their affiliates;
- (c) transferred to Columbia Power Corporation, Columbia Basin Trust and their affiliates the benefit of the water reserve on the Pend d’Oreille River near the Waneta Dam; and
- (d) allowed the issuance of water licences for the Brilliant Upgrades and Brilliant Expansion pursuant to the terms of the water reserve on the Kootenay River near the Brilliant Dam that had previously been established by the Province in favour of B.C. Hydro;

I. On May 22, 1996, Teck sold the Brilliant Dam and related assets to a joint venture of Columbia Power Corporation and CBT Power Corp. (collectively, “**CPC/CBT**”) and Teck assigned to CPC/CBT its rights and obligations under the Original Canal Plant Agreement and the Benefit Extension Agreement to the extent those rights and obligations relate to the Brilliant Dam and CPC/CBT assumed and agreed to be bound by the obligations of Teck under the Original Canal Plant Agreement and the Benefit Extension Agreement to the extent those obligations relate to the Brilliant Dam;

J. FortisBC, Teck and CPC/CBT entered into an agreement made as of April 4, 1996 to identify the ownership of certain facilities and to define the specific rights and obligations of each of FortisBC, Teck and CPC/CBT with respect to the Original Canal Plant Agreement, which agreement was amended and restated concurrently with execution of the 2005 Canal Plant Agreement (as hereinafter defined in Recital L) by an agreement among the Entitlement Parties, as amended and restated as of February 15, 2010 and as further amended and restated as of the date hereof (the “**CPA Subagreement**”);

K. On April 1, 2004, CPC/CBT assigned the Brilliant Dam and all related assets and rights, including its rights under the Original Canal Plant Agreement and the Benefit Extension Agreement to BPC and BPC assumed and agreed to be bound by the obligations of CPC/CBT under the Original Canal Plant Agreement and the Benefit Extension Agreement to the extent those obligations relate to the Brilliant Dam;

L. B.C. Hydro, Teck, FortisBC, BPC, BEPC and Waneta Expansion Power Corporation (“**WEPC**”) (the previous owner of the Waneta Expansion rights) entered into an agreement made as of July 1, 2005 (such agreement as amended prior to completion of the Waneta Sale Transaction, the “**2005 Canal Plant Agreement**”) pursuant to the 1971 Agreement whereby the parties amended and restated the Original Canal Plant Agreement in its entirety to provide for their continued cooperation in the operation of their available storages and generating facilities in British Columbia for the purpose of obtaining optimum generation from B.C. Hydro's generation resources and the Plants;

M. Teck and WEPC entered into an agreement made October 22, 2009 (the “**Sizing Agreement**”) to establish as between each other the respective priorities for the diversion of water at the Waneta Facilities, as amended;

N. B.C. Hydro, Teck and others entered into an agreement made as of September 22, 2009, and completed March 5, 2010, whereby Teck sold to B.C. Hydro and B.C. Hydro purchased from Teck a one-third undivided interest in the Waneta Plant (the “**Waneta Sale Transaction**”);

O. B.C. Hydro, Teck, FortisBC, BPC, BEPC and WEPC entered into an agreement (the “**First Amended and Restated 2005 Canal Plant Agreement**”), effective as of the completion of the Waneta Sale Transaction, to amend and restate the 2005 Canal Plant Agreement in its entirety;

P. WELP, a limited partnership in which Fortis Inc. (an affiliate of FortisBC), CPC Waneta Holdings Ltd. and CBT Waneta Expansion Power Corp. are limited partners, has obtained from WEPC all of the rights related to the Waneta Expansion, including all of WEPC's rights and obligations under the First Amended and Restated Canal Plant Agreement and the Sizing Agreement, and intends to construct, own and operate the Waneta Expansion;

Q. Pursuant to Section 14.3 of the First Amended and Restated 2005 Canal Plant Agreement, B.C. Hydro, Teck, FortisBC, BPC, BEPC and WELP wish to enter into this Agreement to amend and restate the First Amended and Restated 2005 Canal Plant Agreement in its entirety; and

R. Pursuant to the *Clean Energy Act* (British Columbia), effective on July 5, 2010 the rights, property, assets of British Columbia Transmission Corporation (“**BCTC**”), including most of its contracts and permits were transferred to and vested in B.C. Hydro and the obligations and liabilities of BCTC except those under certain excluded contracts and permits, were transferred and assumed by B.C. Hydro.

THIS AGREEMENT WITNESSES that in consideration of the mutual covenants herein and other good and valuable consideration, the parties agree as follows:

1. INTERPRETATION

1.1 Definitions

In this Agreement, including the Recitals:

- (a) **“Adjustment Factor”** means:
 - (1) for the FortisBC Plants, 1.00349 in the case of the Adjustment Factor for Entitlement Energy, and 1.0401 in the case of the Adjustment Factor for Entitlement Capacity;
 - (2) for the Brilliant Plant, 0.97756;
 - (3) for the Waneta Plant:
 - (A) prior to WAX Start-up, from and after WAX Start-up in respect of the first 25,000 cfs of water authorized for diversion and use by the Waneta Facilities, and during any WAX Start-up Prolonged Outage Period:
 - (i) 0.91112 if the Teck Cominco CPA Scheduling Agreement is not in effect; and
 - (ii) if the Teck Cominco CPA Scheduling Agreement is in effect, 0.91112 plus the Adjustment Factor Increment in the Teck Cominco CPA Scheduling Agreement,
 - (B) from and after WAX Start-up, except during any WAX Start-up Prolonged Outage Period, in respect of Waneta Residual Water:
 - (i) 0.7567 if the Teck Cominco CPA Scheduling Agreement is not in effect; and
 - (ii) if the Teck Cominco CPA Scheduling Agreement is in effect, 0.7567 plus the Adjustment Factor Increment in the Teck Cominco CPA Scheduling Agreement (0.02233 as at the date of this Agreement);
 - (4) for the Brilliant Facilities:
 - (A) 0.86028 during any period that is not a Flexibility Option Period (as defined in the BEPC CPA Scheduling Option Agreement); and
 - (B) during any Flexibility Option Period (as defined in the BEPC CPA Scheduling Option Agreement), 0.86028 plus the Adjustment Factor Increment in the BEPC CPA Scheduling Option Agreement;

- (5) for the Waneta Expansion, from and after WAX Start-up, except during any WAX Start-up Prolonged Outage Period (when the Adjustment Factor will be zero):
 - (A) in respect of the first 21,330 cfs of water in excess of 25,000 cfs authorized for diversion and use by the Waneta Facilities, 0.811 plus the SVM Benefit Adjustment Factor Increment; and
 - (B) in respect of WAX Residual Water, 0.7567;
- (b) **“Aggregate Entitlement”** means the Entitlement Energy and Entitlement Capacity applicable to all of the Plants;
- (c) **“Aggregate Entitlement Energy”** in a period means the total Entitlement Energy applicable to all of the Plants in that period;
- (d) **“Agreement”** means this agreement, including the Schedules and Tables hereto;
- (e) **“B.C. Control Area”** means the electric system or systems within the province of British Columbia which, as of the date of this Agreement, is bounded by interconnection metering and telemetry, has one operator responsible for effecting generation control to maintain the area’s schedules with other control areas and contributes to frequency regulation of the Western Interconnection;
- (f) **“B.C. Hydro System”** means the transmission facilities and related protection, control and communication equipment in British Columbia owned and operated by B.C. Hydro, and includes all additions and modifications thereto and repairs or replacements thereof;
- (g) **“BEPC CPA Scheduling Option Agreement”** means the agreement between BEPC and B.C. Hydro made as of the 1st day of July, 2005, as amended and supplemented from time to time;
- (h) **“Brilliant Expansion”** means hydro-electric facilities near the Brilliant Plant that use the hydraulic head created by the Brilliant Dam, including Upgrades thereto from time to time. As of the date of this Agreement Brilliant Expansion is owned by BEPC;
- (i) **“Brilliant Facilities”** means the Brilliant Plant and the Brilliant Expansion;
- (j) **“Brilliant Plant”** means the Brilliant Dam located on the Kootenay River and its related hydroelectric facilities, including Upgrades thereto from time to time (but excluding the Brilliant Expansion). As of the date of this Agreement Brilliant Plant is owned by BPC;
- (k) **“Columbia River Treaty”** means the Treaty between Canada and the United States of America relating to the Co-operative Development of the Water Resources of Columbia River Basin (together with any protocol or exchange of notes relating thereto, any agreement or operating plan entered into or agreed between entities pursuant thereto, and the related agreement dated July 8, 1963 between the Province and Canada), any extension thereof or any replacement thereof;
- (l) **“Coordination Transfers”** means:

- (1) energy delivered to the Entitlement Parties by B.C. Hydro to make up for a deficiency of the Plants' generation compared to the Entitlement Parties' Aggregate Entitlement usage; and
 - (2) energy delivered to B.C. Hydro by the Entitlement Parties from the Plants' generation which is in excess of the Entitlement Parties' Aggregate Entitlement usage;
- (m) **"Co-Ownership and Operating Agreement"** means the Co-Ownership and Operating Agreement made as of the 5th day of March, 2010 between B.C. Hydro and Teck;
 - (n) **"Dispute Parties"** has the meaning set out in Section 12.1;
 - (o) **"Entitlement Capacity"** is determined in accordance with Schedule A, and may be adjusted and re-determined from time to time in accordance with this Agreement, including Schedule A;
 - (p) **"Entitlement Energy"** is determined in accordance with Schedule A, and may be adjusted and re-determined from time to time in accordance with this Agreement, including Schedule A;
 - (q) **"Entitlement Parties' System"** means the interconnected transmission facilities and related protection, control and communication equipment located in British Columbia within the area served by FortisBC as at the date of this Agreement and owned by one or more of the Entitlement Parties or their affiliates, and includes all additions and modifications thereto and repairs or replacements thereof;
 - (r) **"Entitlement Party"** means any of FortisBC, Teck, BPC, BEPC and WELP, and successors and permitted assigns thereof, and **"Entitlement Parties"** means all of them;
 - (s) **"Environmental Credit"** means any income, credit, right, benefit or advantage relating to environmental matters including, without limitation, type and level of emissions, means of production of energy, input sources and compliance with any environmental laws, regulations, rules or orders;
 - (t) **"Exchange Accounts"** has the meaning set out in Section 4.2;
 - (u) **"FortisBC Plants"** means the Plants owned by FortisBC as of the date of this Agreement being collectively, the Corra Linn, Upper Bonnington, Lower Bonnington and South Slokan dams located on the Kootenay River and their respective related hydroelectric facilities, including Upgrades thereto from time to time;
 - (v) **"Good Utility Practice"** means any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended

to be limited to the optimum practice, method or act to the exclusion of all others, but rather to be acceptable practices, methods or acts generally accepted in the WECC region;

(w) **“Interchange Schedule”** means a schedule for the transfer of energy between the B.C. Control Area and any other control area or between the Entitlement Parties’ System and other parts of the B.C. Control Area, but does not include:

- (1) a schedule for the transfer of energy solely on the Entitlement Parties’ System;
- (2) a Coordination Transfer;
- (3) a schedule from generation other than the Plants that does not affect Aggregate Entitlement usage; or
- (4) a schedule by B.C. Hydro including, for greater certainty, a schedule under the Power Purchase Agreement between B.C. Hydro and FortisBC made as of the 1st day of October, 1993 (filed by B.C. Hydro as Rate Schedule 3808) as amended, supplemented or replaced from time to time, and the Duck Lake Wheeling Agreement between B.C. Hydro and FortisBC dated October 6, 2009;

nor, in respect of FortisBC, does it include any of the following:

- (5) a schedule that affects Aggregate Entitlement usage only to the extent of the provision by FortisBC of ancillary services required to be provided pursuant to its wholesale open access transmission tariff, as such tariff exists as at the date of this Agreement or as it may be amended or replaced on substantially similar terms;
- (6) a schedule from generation facilities other than the Plants, the output of which facilities FortisBC is obliged to purchase pursuant to any of the following agreements (as amended or replaced from time to time), provided and to the extent that the maximum output of such facilities is not increased from the level (indicated below):
 - (A) General Service Power Contract dated December 20, 2002 between FortisBC and Zellstoff Celgar Limited (approximately 50 MW);
 - (B) Letter Agreement dated January 8, 2001 between FortisBC and City of Nelson (approximately 15 MW); and
 - (C) Letter Agreement dated January 22, 2001 between FortisBC and Cascade Pacific Corporation (approximately 1 MW); or
- (7) a schedule from generation facilities other than the Plants, in respect of which facilities none of the Entitlement Parties has a direct contractual relationship pursuant to which such schedules might be prevented from affecting Aggregate Entitlement usage, and the output of which facilities a municipal wholesale

customer of FortisBC is permitted to purchase pursuant to any of the following agreements (as amended or replaced from time to time), provided and to the extent that the maximum output so purchased does not exceed the limit of 15 MW specified in each such agreement:

- (A) Agreement made as of the 1st day of November, 2004 between FortisBC and City of Kelowna;
- (B) Agreement made as of the 1st day of April, 2006 between FortisBC and City of Penticton;
- (C) Agreement made as of the 1st day of April, 2006 between FortisBC and City of Grand Forks;
- (D) Agreement made as of the 1st day of November, 2004 between FortisBC and City of Nelson; and
- (E) Agreement made as of the 1st day of April, 2006 between FortisBC and District of Summerland;

(x) **“Interconnection Agreement”** means:

- (1) the agreement dated as of April 5, 2004 between FortisBC and B.C. Hydro;
- (2) the agreement dated as of April 5, 2004 between Teck and B.C. Hydro;
- (3) the agreement dated as of April 5, 2004 between Arrow Lakes Power Corporation and B.C. Hydro; and
- (4) the agreement dated November 7, 2011 between WELP and B.C. Hydro,

as each may be amended or supplemented from time to time, and from time to time hereafter any other agreement between an Entitlement Party and B.C. Hydro which sets out the terms and conditions as to operational and other matters pertaining to the interconnection of the transmission systems of the parties thereto and **“the Interconnection Agreements”** at any time means all such agreements in force at that time;

(y) **“Kootenay Canal Plant”** means the dam and related hydroelectric facilities owned by B.C. Hydro located on the Kootenay River near the FortisBC Plants;

(z) **“Kootenay Interconnection”** means the interconnections described in Schedule B, which are deemed for the purposes of this Agreement to be a single point of interconnection between the Entitlement Parties' System and the B.C. Hydro System;

(aa) **“Late Schedule Change Limit”** means:

- (1) 210 MW;

- (2) less, while the Teck Cominco CPA Scheduling Agreement is in effect or Section 3.7(d) applies, 125 MW; and
 - (3) less, during a Flexibility Option Period (as defined in the BEPC CPA Scheduling Option Agreement), 25 MW;
- (bb) **“Legal Obligations”** means, as applicable, the Columbia River Treaty and hydroelectric operating plans and other legal obligations developed thereunder, water licences, permits, Orders of the International Joint Commission, the provisions of this Agreement and other requirements established by statute, regulation or lawful order;
- (cc) **“Maximum Generation Capacity”** has the meaning set out in Schedule A;
- (dd) **“Minimum Take”** means, from time to time 150 MW plus 21.5% of the amount that the total Maximum Energy Delivery Rate for December as set out in Table 9 exceeds 690 MW, as modified from time to time in accordance with Section 3.7(a) or Section 6.9 of Schedule A;
- (ee) **“NERC”** means the North American Electric Reliability Council or a successor organization;
- (ff) **“Operating Committee”** means the operating committee established under Section 11.1;
- (gg) **“Operating Procedures”** means those procedures for the implementation of this Agreement developed and modified from time to time by the Operating Committee pursuant to this Agreement or as otherwise developed by dispute resolution pursuant to Section 12;
- (hh) **“Operating Year”** means the period from August 1st to July 31st inclusive, or such other consecutive 12-month period as the Operating Committee may determine;
- (ii) **“Original Canal Plant Agreement”** means the agreement described in Recital F, as amended and supplemented up to June 30, 2005;
- (jj) **“Plant”** means any one of the Brilliant Plant, the Waneta Plant, each of the FortisBC Plants, the Brilliant Expansion, and from and after WAX Start-up the Waneta Expansion, except that:
 - (1) for the purposes of the definitions of Generation Versus Flow Characteristics, Head Correction Factors, Maximum Generation Capacity, Flow at Maximum Generation Capacity and Plant Characteristics the Brilliant Facilities will be treated as a single Plant;
 - (2) for the purposes of the definitions of Generation Versus Flow Characteristics, Head Correction Factors, Maximum Generation Capacity, Flow at Maximum Generation Capacity and Plant Characteristics and for the purposes of Sections 5.2, 5.3(g)(2)(E) and 5.5 of Schedule A, from and after WAX Start-up except

during any WAX Start-up Prolonged Outage Period, the Waneta Facilities will be treated as a single Plant;

- (3) (for the purposes of Sections 2.3 and 10.1, the Kootenay Canal Plant will be treated as a Plant; and
- (4) for the purposes of Sections 1.1(b), (c), (l) and (w), 2.1, 2.3 (but not 2.3(e)), 2.5, 3.7, 6.7(c), and 10.1 "Plant" is limited, with respect to the Waneta Plant, to the Teck Participation Percentage of the Waneta Plant;
- (kk) **"Plant Characteristics"** has the meaning set out in Schedule A;
- (ll) **"Residual Water"** means water licensed or otherwise authorized for diversion and use by the owner(s) of the Waneta Facilities in excess of the first 46,330 cfs;
- (mm) **"Season"** means either the Storage Draft Season or the Storage Refill Season;
- (nn) **"Senior Executive"** of a party means the Chair, the President, any Vice-President or any other officer of the party equivalent to any of the foregoing;
- (oo) **"Sizing Agreement"** has the meaning set out in Recital M;
- (pp) **"Storage Draft Season"** means the period of August 1 through April 30;
- (qq) **"Storage Refill Season"** means the period of May 1 through July 31;
- (rr) **"SVM Benefit Adjustment Factor Increment"** means:
 - (1) until the expiry or earlier termination of the initial term of the WAX EPA, 0.123 subject to re-determination as set out in Section 6.11 of Schedule A; and
 - (2) after the expiry or earlier termination of the initial term of the WAX EPA, zero;
- (ss) **"Teck Cominco CPA Scheduling Agreement"** means the agreement between Teck and B.C. Hydro made as of the 1st day of July, 2005, as amended and supplemented from time to time;
- (tt) **"Teck Participation Percentage"** means, at any given time, Teck's **"Participation Percentage"** (as defined in the Co-Ownership and Operating Agreement) at that time;
- (uu) **"Unexpected Transmission Limitation"** means:
 - (1) any limitation on the use of non-firm transmission that occurs after an Interchange Schedule is duly submitted which affects the Interchange Schedule; and
 - (2) any other limitation on the use of transmission that occurs after an Interchange Schedule is duly submitted which affects the Interchange Schedule and was not expected when the Interchange Schedule was submitted;

- (vv) **“Unit”** means machinery and equipment making up a complete and independent hydro-electric generator including water passages, turbine, exciter, generator and generator output transformer and replacements thereof;
- (ww) **“Unit Derate”** means a Unit's capacity is reduced below its maximum continuous rating used in the derivation of the Maximum Generation Capacity of the Plant due to a component failure, maintenance or other equipment or Plant condition, reasonable safety concerns or any other cause beyond the reasonable control of the owner or operator;
- (xx) **“Unit Outage”** means a Unit out of service due to a component failure, maintenance or other equipment or Plant condition, reasonable safety concerns or any other cause beyond the reasonable control of the owner or operator;
- (yy) **“Upgrade”** of a Plant means any capital project that results in an increase in the capacity or energy generation of the Plant by means of efficiency improvement, but not by means of the use of water in addition to that authorized as of the date of this Agreement to be diverted at the Plant, and for greater certainty includes the Brilliant Upgrades and the Waneta Upgrades completed prior to the date of this Agreement; the use of the word **“Upgrade”** immediately after the name of a Plant means an Upgrade of that Plant;
- (zz) **“Waneta Expansion”** or **“WAX”** means hydro-electric facilities to be constructed near the Waneta Plant using the hydraulic head created by the Waneta Dam, including Upgrades thereto from time to time;
- (aaa) **“Waneta Facilities”** means, together, the Waneta Plant and the Waneta Expansion;
- (bbb) **“Waneta Plant”** means the Waneta Dam located on the Pend d'Oreille River and its related hydroelectric facilities, including Upgrades thereto from time to time (but excluding the Waneta Expansion), except in respect of (i) references to “Entitlement Energy and Entitlement Capacity attributable to the Waneta Plant” in Section 6.7 of Schedule A, (ii) references to “Entitlement Capacity attributable to the Waneta Plant” in Section 4.2(i) of Schedule A, and (iii) references to “Entitlement Energy attributable to the Waneta Plant” in Section 4.3(f) of Schedule A, where in each such case **“Waneta Plant”** means only the Teck Participation Percentage of the Waneta Plant. As of the Waneta Closing, Teck owns the Teck Participation Percentage of the Waneta Plant;
- (ccc) **“Waneta Residual Water”** means Residual Water the priority to which is allocated to the owners of the Waneta Plant pursuant to the Sizing Agreement;
- (ddd) **“Water Fees”** has the meaning set out in Section 9.1;
- (eee) **“Water Licence”** means a water licence or other authorization to divert water issued to an Entitlement Party relating to the operation of one or more of the Plants;
- (fff) **“WAX CAPA”** means the capacity purchase agreement dated as of October 1, 2010 between WELP and FortisBC;

- (ggg) **“WAX EPA”** means the electricity purchase agreement dated as of October 1, 2010 between WELP and B.C. Hydro;
- (hhh) **“WAX Residual Water”** means Residual Water the priority to which is allocated to WEPC (now WELP) pursuant to the Sizing Agreement;
- (iii) **“WAX Start-up”** means that for 120 consecutive hours a Unit at the Waneta Expansion:
- (1) during all periods in such 120 hour period when flow was available, has generated power as reasonably expected for such flow conditions and without a Unit Outage;
 - (2) during all periods in such 120 hour period when flow was not available, was available for operation; and
 - (3) subject to flow availability, throughout the 120 hour period was capable of stopping and starting without unusual delay, as expected based on design and operating procedures,
- and has been, pursuant to Good Utility Practice in the reasonable opinion of WELP, commissioned;
- (jjj) **“WAX Start-up Period”** means the period beginning on WAX Start-up and ending on the later of: (1) the first anniversary of WAX Start-up; and (2) the day when there has not been a WAX Unit Outage of 3 consecutive months or longer in the previous 12 months;
- (kkk) **“WAX Start-up Prolonged Outage Period”** means any period of time in the WAX Start-up Period beginning three months after both WAX Units have gone out of or are deemed to have gone out of service and ending when at least one Unit returns to service (which for the purpose of this definition means the Unit has satisfied the conditions described in the definition of WAX Start-up for 60 consecutive hours (as opposed to 120 consecutive hours));
- (lll) **“WECC”** means Western Electricity Coordinating Council or a successor organization; and
- (mmm) **“Western Interconnection”** has the meaning assigned to it by WECC.

1.2 Plural and Singular

In this Agreement, the singular includes a reference to the plural, and vice versa, unless the context requires otherwise.

1.3 Including

In this Agreement, references to “include”, “including” and similar expressions mean “including but not limited to”.

1.4 Section, Schedule and Table References

Reference to a particular numbered Section, Schedule or Table is a reference to the correspondingly numbered Section, Schedule or Table of this Agreement.

1.5 Operating Procedure Inconsistencies

In the event there is an inconsistency between this Agreement and any Operating Procedure made under it, this Agreement will prevail to the extent of the inconsistency and the Operating Committee will modify the Operating Procedure to eliminate the inconsistency. In the event there is an inconsistency between two or more Operating Procedures, the Operating Committee will modify one or more of the Operating Procedures to eliminate the inconsistency.

1.6 Parties

Unless the context otherwise indicates, reference to a “party” or the “parties” is a reference to a party, or the parties, to this Agreement and their respective permitted assigns, successors, subcontractors, trustees, administrators and receivers.

1.7 Headings

The headings appearing in this Agreement have been inserted for ease of reference and as a matter of convenience only and in no way define, limit or enlarge the scope of any provision of this Agreement.

1.8 Invalid Provisions

If any provision of this Agreement is declared or found to be invalid, illegal or unenforceable, in whole or in part, it will not be severable from this Agreement but the parties will work together in good faith to amend the provisions of this Agreement so that it will be valid, legal and enforceable.

1.9 Applicable Law

This Agreement will be construed in accordance with the laws of the Province of British Columbia.

1.10 Joint Obligations

The obligations expressed herein to be obligations of the Entitlement Parties (as distinguished from an obligation of an Entitlement Party, each Entitlement Party or each of the Entitlement Parties) are joint obligations of the Entitlement Parties.

2. OBLIGATIONS AND RIGHTS

2.1 Plant Output and Aggregate Entitlement

The Entitlement Parties will be entitled to the Aggregate Entitlement from generation from and at the Plants, as they may be operated in accordance with this Agreement, and, to the extent the generation at the Plants is insufficient, from B.C. Hydro. The Entitlement Parties may use the Aggregate Entitlement in accordance with this Agreement and may use the reactive power support available at the Plants in their absolute discretion. B.C. Hydro will be entitled to any energy, capacity and reactive power generation of

the Plants over and above the Aggregate Entitlement and reactive power support provided to the Entitlement Parties, provided that B.C. Hydro will not be entitled to use reactive power generation at the Plants during any period of time in which the Entitlement Parties have notified B.C. Hydro that in the reasonable opinion of the Entitlement Parties use by B.C. Hydro of such reactive power generation may be detrimental to the Entitlement Parties.

2.2 Coordination Transfers

Coordination Transfers from B.C. Hydro to the Entitlement Parties will be made available by B.C. Hydro to the Entitlement Parties, and will be deemed to occur, at the Kootenay Interconnection. Coordination Transfers from the Entitlement Parties to B.C. Hydro will be made available by the Entitlement Parties to B.C. Hydro, and will be deemed to occur, at the Kootenay Interconnection.

2.3 Coordination

B.C. Hydro will provide operating instructions to the Entitlement Parties respecting generation and water releases at their respective Plant(s), and each of the Entitlement Parties will control its Plant(s) in accordance with such operating instructions from B.C. Hydro, all in accordance with the Operating Procedures and subject to the following:

- (a) an Entitlement Party, or its agent, may alter the dispatch of its Plant(s) from that in the operating instructions provided by B.C. Hydro only for reasons of (1) local reliability, (2) local reactive power support, or (3) reliability of the Plant; provided that the alteration of the dispatch of a Plant will be done in such a manner that the magnitude and duration of the altered dispatch is no more than reasonably required;
- (b) each party will endeavour to operate its Plant(s) in an environmentally responsible manner while recognizing its commercial interests. In developing the Operating Procedures and determining the operation of an individual Plant, each of the parties will reasonably consider the interests (short-term and long-term) of the Plants of other parties and will consult over a reasonable period of time with each other party whose interests may be materially affected and will reasonably take into account the interests of such other parties before making or agreeing to make any changes that affect the generation of any Plant. Each party will, on an on-going basis, identify any concerns with respect to Plant operation to the Operating Committee;
- (c) B.C. Hydro will endeavour to coordinate river operations in an environmentally responsible manner while recognizing its commercial interests. In coordinating river operations and providing operating instructions, B.C. Hydro will reasonably consider the interests (short-term and long-term) of the Plants of other parties. B.C. Hydro will identify any concerns with respect to Plant operation to the Operating Committee;
- (d) except as provided in (a) above, to the extent that an Entitlement Party, or its agent, does not comply with an operating instruction from B.C. Hydro and thereby restricts the operation of any Plant or Kootenay Lake in a manner that was not considered in (1) the calculation of that portion of the Aggregate Entitlement applicable to the affected Plant(s), or (2) the determination of the Aggregate Entitlement scheduling constraints of Section 3.7, such Entitlement Party will be responsible for the actual impact of such

restrictions, net of any Aggregate Entitlement reductions that result from such restrictions. The Operating Committee will determine the extent, if any, of the Entitlement Party's responsibility for the actual impact of such restrictions;

- (e) if a restriction is imposed on the operation of any Plant or Kootenay Lake in a manner that was not considered in (1) the calculation of the Aggregate Entitlement applicable to the affected Plant(s), or (2) the determination of the Aggregate Entitlement scheduling constraints of Section 3.7, then to the extent that the restriction is a result of B.C. Hydro coordination of water operations in the basin, and would not have been imposed in the absence of such B.C. Hydro coordination, no adjustments to or re-determinations of Aggregate Entitlement will be made, all of which will be determined by the Operating Committee;
- (f) if an Entitlement Party, or its agent, expects to impose restrictions on the operation of any Plant or Kootenay Lake, it will provide B.C. Hydro with as much notice of such restrictions as practicable. B.C. Hydro will take steps to modify its planned operations to recognize such restrictions, without prejudice to B.C. Hydro's rights under this Section 2.3. The Operating Committee will determine, in advance if practicable, the appropriate mechanism to compute the adjustments to or re-determinations of Aggregate Entitlement, or other compensation, resulting from such restrictions; and
- (g) the parties will endeavour to implement cost-effective mitigation and compensation measures designed to minimize the need to restrict Plant operations. The Operating Committee will determine the cost sharing for such measures.

2.4 Information Exchange

Each party will provide to another party, in a timely manner, information requested by that other party that is reasonably required by that other party for the implementation of this Agreement or is reasonably required for the optimization of B.C. Hydro's generation resources and the Plants, including:

- (a) good faith estimates of the Entitlement Parties' hourly load and hourly Aggregate Entitlement usage;
- (b) good faith estimates of net aggregate Interchange Schedules;
- (c) real-time changes to net aggregate Interchange Schedules;
- (d) information regarding transmission limitations;
- (e) metering information;
- (f) Legal Obligations;
- (g) other potential or actual restrictions on Plant operations; and
- (h) expected and actual Unit Outages and Unit Derates.

Except as otherwise determined by the Operating Committee or agreed to by the parties (including in Section 4.5), the Entitlement Parties will be considered as a single party for the purposes of the provision of information pursuant to each of (a), (b) and (c) above and the information will be provided to B.C. Hydro by the Entitlement Parties or their agent on an aggregate basis.

Each party receiving information under or pursuant to this Agreement will use such information only for the implementation of this Agreement, the optimization of B.C. Hydro's generation resources and the Plants, or the reliable operation of its respective system. Without limitation, a party will not use or permit to be used any data or information that it receives from another party or a third party under or pursuant to this Agreement for the purpose of obtaining a commercial advantage over any other party or of inhibiting or otherwise interfering with the legitimate business interests of any other party.

The Operating Committee will develop one or more Operating Procedures with respect to information exchange, including timing for providing information (including real-time changes).

An Entitlement Party's right to implement Interchange Schedules in accordance with Section 6.4 is acknowledged. It is also acknowledged that the timely exchange of information is required to realize the coordination benefits to be derived from this Agreement and the Entitlement Parties' net aggregate Interchange Schedule information is required for the optimum dispatch of B.C. Hydro's generation resources and the Plants.

2.5 Ownership and Operation

Nothing in this Agreement will affect a party's ownership of its Plant(s), transmission system and related assets, its right to upgrade its assets or its responsibility to ensure the operation of its assets remains consistent with its Legal Obligations and Good Utility Practice. For greater certainty, Coordination Transfers and ancillary services as contemplated hereunder are an allocation of output from coordinated resources of B.C. Hydro and the Entitlement Parties and are not the provision of a product or service by a party to another.

2.6 Good Utility Practice and Industry Requirements

Each of the parties will comply with Good Utility Practice in exercising its rights and performing its obligations under this Agreement.

Each of the parties will comply with applicable criteria from time to time of the B.C. Control Area operator, NERC, WECC, and any other authority having jurisdiction, in exercising its rights and performing its obligations under this Agreement. When considering how to comply with applicable criteria the parties will take into account the terms of this Agreement in determining the means of complying with such criteria.

3. AGGREGATE ENTITLEMENT

3.1 Aggregate Entitlement

The Aggregate Entitlement is as set out in Table 9.

3.2 Adjustments to Aggregate Entitlement

The Aggregate Entitlement may be adjusted in accordance with Section 4.1 and will be reduced for Unit Outages and Unit Derates in accordance with the procedures and adjustments set out in Schedule A.

3.3 Reductions Due to System Limitations

- (a) B.C. Hydro will be responsible for any losses incurred due to its inability to accept Coordination Transfers at the Kootenay Interconnection and accordingly there will be no resulting Aggregate Entitlement reductions.
- (b) If any Plant is derated due to limitations on both the B.C. Hydro System and the Entitlement Parties' System, the Aggregate Entitlement reduction will be determined by the Operating Committee in a manner that reflects the relative impact of each system's limitations.
- (c) If any Plant is derated due to limitations on the Entitlement Parties' System (such limitations to include any actual limitations on Teck's Line 71 resulting from conditions in the United States):
 - (1) the Entitlement Capacity will be reduced based on the Aggregate Entitlement adjustments set out in Table 10, regardless of the amount (if any) of actual capacity lost; and
 - (2) the Entitlement Energy reduction will be equal to the lesser of:
 - (A) the actual unavoidable energy loss; and
 - (B) the Entitlement Energy reduction for the Plant based on Table 10.
- (d) The parties will use reasonable efforts to mitigate actual energy losses resulting from limitations under this Section 3.3. The party benefiting from mitigation measures of another party will, to the extent of the benefit, be responsible for the costs of mitigation. If more than one party benefits, the responsibility for the costs of mitigation will be determined by the Operating Committee in a manner that shares the mitigation costs based on the benefits respectively enjoyed by such parties.

3.4 Methodology

The Aggregate Entitlement has been, and during the term of this Agreement may only be, determined in accordance with the calculation methodology used in the Entitlement Calculation Program, which is described in Schedule A. Except as specifically set out herein, the Entitlement Calculation Program may not be amended without the written agreement of all of the parties to this Agreement.

3.5 Aggregate Entitlement Usage

Subject to Section 3.7, the Entitlement Parties may use the Aggregate Entitlement, both Entitlement Energy and Entitlement Capacity, which is made available to them under this Agreement for their use, including for spill, in their absolute discretion. Entitlement Energy recorded in the Exchange Accounts

established pursuant to Section 4.2 is not a use of Aggregate Entitlement Energy; withdrawals of energy from the Exchange Accounts are a use of Aggregate Entitlement Energy. The Operating Committee will develop an Operating Procedure for the accounting of Aggregate Entitlement usage. Entitlement Capacity usage may not exceed the Aggregate Entitlement capacity at any time.

Certain of the Entitlement Parties have entered into, and any of the Entitlement Parties may from time to time hereafter enter into, amend or replace, commercial arrangements with third parties (including B.C. Hydro) that limit such Entitlement Party's Aggregate Entitlement usage and/or Exchange Accounts use under this Agreement. Any such Entitlement Party having entered into such a commercial arrangement with a third party (including B.C. Hydro but not including other Entitlement Parties) will give to all other parties whose interests hereunder are, in the opinion of such Entitlement Party (formed in good faith), affected by the commercial arrangement prompt notice of any such commercial arrangements and the effect thereof on the notifying Entitlement Party's Aggregate Entitlement usage and/or Exchange Accounts use, and the Entitlement Parties will abide by the limits on Aggregate Entitlement usage and/or Exchange Accounts use that are identified in any and all such notices.

3.6 Metering and Measurement

Each Entitlement Party will be responsible for maintaining existing metering capability (or replacement with revenue quality metering) at its Plant(s). Each party will be responsible for maintaining existing metering capability (or replacement with revenue quality metering) at any points of interconnection between its system and any other systems. In the case of interconnections between the systems of two or more parties to this Agreement, the interconnecting parties will determine which party will provide the metering capability. If any party requests that additional metering be provided, the other parties will make reasonable efforts to accommodate such request and the requesting party will be responsible for any incremental capital costs incurred.

Each Entitlement Party will provide B.C. Hydro with reasonable access to its premises, at B.C. Hydro's own risk and expense, for the installation and maintenance of B.C. Hydro meters and metering apparatus that it reasonably determines that it requires for administration of this Agreement.

The *Electricity and Gas Inspection Act* (Canada), as revised from time to time and the regulations made thereunder will govern any revenue quality metering carried out under this Agreement. The parties acknowledge that the owners of meters may test, calibrate, remove and change their respective metering equipment at any reasonable time. Each party will be entitled to have a representative present at any test or calibration by another party. Other types of metering and telemetering carried out under this Agreement for system operation or other purposes, will be subject to mutual agreement.

3.7 Minimum Take and Scheduling Constraints

- (a) The hourly Aggregate Entitlement usage must be at least equal to the Minimum Take, reflecting operating constraints on the Plants. The Operating Committee will modify the Minimum Take or impose new constraints on Aggregate Entitlement usage if required to reflect changes in generation at the Plants based on: (1) changes from and after the date of this Agreement to (A) Plant Characteristics, (B) Legal Obligations of the Entitlement Parties, or (C) system reliability requirements or implementation of the reliability requirements established by NERC, WECC, or any other authority having jurisdiction; or

(2) the application by the B.C. Control Area operator of any system reliability requirement (whether the system reliability requirement was established before or after the date of this Agreement). When considering modifying the Minimum Take or imposing new constraints on the Aggregate Entitlement usage as a result of application by the B.C. Control Area operator of any system reliability requirement, the Operating Committee must consider the characteristics of the Entitlement Parties' System (for example, the ability to shed load) and arrangements, if any, between an Entitlement Party and the B.C. Control Area operator relating to those characteristics. Subject to any applicable modifications established by the Operating Committee, for any hour during which Aggregate Entitlement usage is less than the Minimum Take, B.C. Hydro will be deemed to have made available and the Entitlement Parties will be deemed to have used the Minimum Take for that hour.

- (b) If changes in the usage of Aggregate Entitlement by one or more of the Entitlement Parties other than FortisBC, excluding changes agreed to or consented to by FortisBC after 30 September 2010 (whether by agreeing to amendments to this Agreement, the CPA Subagreement, or otherwise), materially reduce FortisBC's flexibility with respect to the usage of Entitlement Capacity attributable to the Waneta Expansion and purchased by FortisBC pursuant to the WAX CAPA prior to expiry of the initial term of the WAX EPA by reason of FortisBC's obligation to share in the Minimum Take obligation, then B.C. Hydro and FortisBC will, acting reasonably, seek to agree on methods of mitigating such reduced flexibility in a manner that would minimize the impact to both parties. Nothing in this Section 3.7(b) requires any other Entitlement Party to agree to any amendment to this or any other agreement.
- (c) Subject to the Teck Cominco CPA Scheduling Agreement, the BEPC CPA Scheduling Option Agreement and Section 3.7(e), the Entitlement Parties will have full discretion to change their Interchange Schedules at any time except that, other than as necessary to meet changes to system requirements, during the period between 70 minutes and 10 minutes prior to the deadline in the WECC region for making real time changes (as such deadline is amended from time to time, and which as of the date of this Agreement is 20 minutes prior to the start of the hour that energy is scheduled to flow) the Entitlement Parties will not increase or decrease their net aggregate Interchange Schedules by more than the Late Schedule Change Limit and thereafter will not change such schedules at all. For purposes of this Section "changes to system requirements" means Unexpected Transmission Limitations, unexpected changes to Plant availability and unexpected changes to reasonably forecasted load requirements, but does not include (1) changes in response to market conditions or (2) unexpected generation and load changes that can be addressed through normal entitlement storage operations. For purposes of this Section 3.7(c) "normal entitlement storage operations" means that the Entitlement Parties are not obligated to reduce the amount unused in the Exchange Account applicable to that day below 5.5 GW.h or to reduce the amount unused in the total available in the two Exchange Accounts (as described in Section 4.4) below 5.5 GW.h.
- (d) If an Entitlement Party implements an Interchange Schedule that is not in compliance with this Section 3.7 then the Entitlement Party will, to the extent required by B.C. Hydro

(acting reasonably), remedy the lack of compliance to the extent possible, which may include cutting or reinstating the applicable Interchange Schedule.

- (e) If the Teck Cominco CPA Scheduling Agreement is not in effect then the rights and obligations of Teck with respect to scheduling will be the same as its rights and obligations with respect to scheduling under the Original Canal Plant Agreement and its related technical decisions and operating procedures for implementing the Original Canal Plant Agreement as the Original Canal Plant Agreement and those technical decisions and operating procedures existed as of June 30, 2005, and subject to the rights and obligations of B.C. Hydro and Teck under the Co-Ownership and Operating Agreement and under the Surplus Power Rights Agreement made as of March 5, 2010 between those parties.

4. FLEXIBILITY / ENTITLEMENT USAGE ACCOUNTING

4.1 Monthly Aggregate Entitlement Energy Adjustments

The Entitlement Parties may adjust the monthly Aggregate Entitlement Energy by up to +/- 7% provided that the Aggregate Entitlement Energy, after the adjustment, in each of the Storage Draft Season, the Storage Refill Season and the November through February period does not exceed the Aggregate Entitlement Energy for such period. The adjustments in Aggregate Entitlement Energy will only be effective for the particular Operating Year (i.e. adjustments cannot be cumulative from Operating Year to Operating Year). The Entitlement Parties will collectively submit to B.C. Hydro at least 30 days prior to the start of each Operating Year their election for the monthly Aggregate Entitlement Energy for the next Operating Year.

The adjustments, if any, to the monthly Aggregate Entitlement Energy under Section 4.1 of the First Amended and Restated 2005 Canal Plant Agreement in effect immediately prior to the commencement of the term of this Agreement will be the adjustments to the monthly Aggregate Entitlement Energy for the applicable Season at the commencement of this Agreement.

4.2 Monthly Accounting

There are two accounts (the “**Exchange Accounts**”) established under this Agreement. One Exchange Account is for the Storage Draft Season and one Exchange Account is for the Storage Refill Season. The balance (B_m) in an Exchange Account at the end of a month will equal the balance (B_{m-1}) at the end of the immediately preceding month in the Season for which that Exchange Account is applicable plus the Aggregate Entitlement Energy for that month (E_m) minus the Aggregate Entitlement Energy usage (A_m) in the month so that:

$$B_m = B_{m-1} + E_m - A_m$$

The balance, if any, as of the commencement of the term of this Agreement in the energy exchange accounts established under Section 4.2 of the First Amended and Restated 2005 Canal Plant Agreement will be the opening balance for the applicable Exchange Account under this Agreement.

4.3 Use and Daily Accounting

The difference between daily Aggregate Entitlement Energy and usage of Aggregate Entitlement Energy by the Entitlement Parties will be recorded each day in the Exchange Account applicable to the Season of usage (i.e. the Storage Draft Season or the Storage Refill Season). The balance (Bd) in the Exchange Account at the end of a day will equal the balance (Bd-1) at the end of the immediately preceding day plus daily Aggregate Entitlement Energy (Sd) minus the Aggregate Entitlement Energy usage (Ad) in the day so that:

$$B_d = B_{d-1} + S_d - A_d$$

For the purposes of this calculation:

- (a) for the first day of a month, Bd-1 is equal to the balance at the end of the immediately preceding month in the same season (i.e. the Storage Draft Season or the Storage Refill Season);
- (b) the daily Aggregate Entitlement Energy is the monthly Aggregate Entitlement Energy divided by the number of days in the month, minus adjustments for Unit Outages and Unit Derates for each day; and
- (c) telemetered values will be taken as actual usage during the month and then corrected with metered values as soon as they become available.

The Operating Committee will develop an Operating Procedure from time to time that accounts for commercial arrangements entered into by individual Entitlement Parties with third parties (including B.C. Hydro but not including other Entitlement Parties) in order to ensure that the Entitlement Parties abide by the limits on Aggregate Entitlement usage and/or Exchange Accounts use identified in any and all notices under Section 3.5.

4.4 Exchange Accounts Maximum

At the end of any day neither the balance in the Exchange Account for the Season applicable to that day nor the total of the balances in the two Exchange Accounts may exceed +46.5 GW.h or be less than -46.5 GW.h, provided however that if the Teck Participation Percentage changes from 66.667%, the foregoing limits will instead be +29.5 GW.h plus the Teck Participation Percentage of 25.5 GW.h, and -29.5 GW.h plus the Teck Participation Percentage of -25.5 GW.h. For example, if the Teck Participation Percentage were to change to 65%, then the limits would be calculated as follows: +29.5 GW.h + (0.65 x 25.5 GW.h) = +46.075 GW.h, and -29.5 GW.h + (0.65 x -25.5 GW.h) = -46.075GW.h.

4.5 Segregated Hourly Energy and Capacity Accounting

Notwithstanding that certain of the Entitlement Parties' rights and obligations under this Agreement are joint, in order that the parties are able to ensure compliance with this Agreement and other commercial arrangements related hereto that are now in place or entered into by Entitlement Parties from time to time hereafter and in respect of which a notice must be given pursuant to Section 3.5, each Entitlement Party that is subject to such a commercial arrangement that limits Aggregate Entitlement usage and/or Exchange Accounts use will promptly make available to the other parties to whom it is obliged to give

notice pursuant to Section 3.5 segregated hourly energy and capacity accounting for its Aggregate Entitlement usage and/or Exchange Account use, as applicable. The Operating Committee will develop a detailed Operating Procedure providing for such segregated hourly energy and capacity accounting. Such accounting will be consistent with Aggregate Entitlement accounting and will be provided by the Entitlement Parties in a coordinated manner.

5. MAINTENANCE

5.1 Maintenance

The Entitlement Parties retain the right to schedule maintenance of their Plant(s) and each Unit of their Plant(s). The Operating Committee will develop Operating Procedures regarding scheduling of maintenance.

6. OPERATIONAL MATTERS

6.1 Automatic Generation Control System

B.C. Hydro, at its own cost, may include any or all of the Brilliant Plant, Brilliant Expansion, Waneta Plant and Waneta Expansion in the automatic generation control system for the B.C. Control Area. The design, operation and resulting load control duties must be acceptable to the Plant owner in each case. The owners of those Plants will provide B.C. Hydro with reasonable access to their premises, at B.C. Hydro's risk and expense, for the installation and maintenance of any equipment necessary to integrate those Plants into the automatic generation control system.

6.2 Integration into Control Area

The Entitlement Parties' generation and load located within the area served by FortisBC as at the date of this Agreement will continue to be integrated into the B.C. Control Area, and none of the Entitlement Parties will provide an independent system load control. Despite such integration the Entitlement Parties remain responsible for providing, or causing to be provided, sufficient qualified resources to meet their ancillary service requirements as established from time to time by the B.C. Control Area operator, NERC, the WECC or any other authority having jurisdiction, as if they had retained their own control area.

6.3 Control Area Services

Except to the extent the Entitlement Parties are responsible for providing ancillary services under Section 6.7, B.C. Hydro will ensure that the Entitlement Parties receive at no cost to the Entitlement Parties, those control area services established by NERC criteria as being required for a control area, which are as set out in an Operating Procedure as at the date of this Agreement.

If the criteria for services required for a control area as established by the B.C. Control Area operator, NERC, WECC or any other authority having jurisdiction are revised or augmented, then B.C. Hydro will ensure that the Entitlement Parties receive those revised, augmented or new control area services which, due to integration of the Entitlement Parties' systems into the B.C. Control Area, it is reasonable for B.C. Hydro as operator of the B.C. Control Area to provide. The Entitlement Parties will pay B.C. Hydro for the provision of such revised, augmented or new services the lesser of B.C. Hydro's incremental cost for the provision of such services to the Entitlement Parties and the amount that the Entitlement Parties would

have paid for such services in the absence of integration with the B.C. Control Area, all as determined by the Operating Committee.

6.4 Schedules to and from the Entitlement Parties' System

- (a) Nothing in this Agreement diminishes the rights, privileges and obligations relating to transmission interconnections with other control areas that the Entitlement Parties would have if they had retained their own control area. As a result of integration into the B.C. Control Area the Entitlement Parties are no longer capable of independently implementing schedules to and from the Entitlement Parties' System with other control areas. Accordingly, B.C. Hydro will ensure that, upon the request of an Entitlement Party to B.C. Hydro, schedules of such Entitlement Party to and from the Entitlement Parties' System are effected if such schedules are in accordance with the terms and conditions of any tariffs, agreements or business practices that are applicable and are in accordance with Good Utility Practice. For greater certainty, nothing in this Section presupposes or provides transmission capacity rights or B.C. Hydro services on the B.C. Hydro System to the Entitlement Parties beyond those provided by separate agreement.
- (b) As of February 15, 2010 the practice in effect for Interchange Schedules is to show an Entitlement Party as the generator or the load for an Entitlement Party's Interchange Schedule and to show B.C. Hydro as the generator and load for all B.C. Hydro schedules (the "**Current Practice**"). B.C. Hydro and the Entitlement Parties acknowledge that such practice is acceptable and is sufficient to satisfy their respective rights and obligations under this Agreement, and no party (either directly or indirectly via an agent or affiliate) will seek a change to the Current Practice unless that party is, or is reasonably expected to be, materially adversely affected by the Current Practice due to a change, or a reasonably expected change, in circumstances subsequent to February 15, 2010. For the purposes of this Section 6.4(b), the actions of B.C. Hydro's grid operations business (or any successor or replacement entity) in its capacity as the B.C. Control Area operator will not be considered to be the actions of B.C. Hydro or an agent or affiliate of B.C. Hydro, provided such actions could reasonably be expected to be taken by an independent control area operator in like circumstances and are not taken for the purpose of benefitting B.C. Hydro or any affiliate of B.C. Hydro to the detriment of any of the Entitlement Parties.

6.5 Control of Schedules

Subject to section 6.4(a), nothing in this Agreement provides a party with a right to control, approve, reject or modify a schedule of another party.

The parties recognize that, as a result of this Agreement, in the future a party (the "**Mandated Party**") may be required to approve, reject, modify or otherwise control a schedule of another party to effect compliance with criteria of the B.C. Control Area operator, NERC, WECC, or other authority having jurisdiction. In such event:

- (a) the Mandated Party will approve, reject, modify or otherwise control a schedule of another party:

- (1) only for the purpose for which the granting of the right was intended (for example, reliability) and not for any other purpose;
 - (2) in accordance with the terms and conditions of any tariffs, agreements or business practices that are applicable and Good Utility Practice; and
 - (3) with the same degree of fairness as it would use for other schedules over which it has approval, rejection, modification or other control rights, including reasonable consultation as time permits, and will report the reasons for its action to the other parties as soon as reasonably practical;
- (b) if the Mandated Party exercises a right contrary to (a) above it will compensate a party adversely affected for losses reasonably demonstrated by the party adversely affected; and
 - (c) the Operating Committee will develop Operating Procedures to ensure that the exercise by the Mandated Party of a right to approve, reject, modify or otherwise control a schedule of another party is in accordance with (a) and (b) above and such procedures will fairly recognize the interests of all parties to this Agreement, including their rights and obligations under this Agreement, and other agreements between the parties, and their interests in controlling and protecting commercially sensitive information.

6.6 Reserve Sharing

B.C. Hydro will ensure that the Entitlement Parties receive reserve sharing through any reserve sharing groups in which each of B.C. Hydro, as operator of the B.C. Control Area, and the designated operator of the Entitlement Parties' System is a participant. The reserve sharing rights and obligations will be set out in an Operating Procedure that must be consistent with the rules and practices of such reserve sharing group.

6.7 Ancillary Services

- (a) The Entitlement Parties will be responsible for providing, or causing to be provided (including from B.C. Hydro as contemplated below), sufficient qualified resources to meet their ancillary services requirements, as established from time to time by the B.C. Control Area operator, NERC, WECC or any other authority having jurisdiction, in respect of Aggregate Entitlement usage, including operating reserves, both spinning and non-spinning, as well as regulation and frequency response.
- (b) For those ancillary services requirements that can be provided through the use of Aggregate Entitlement (such as reserves and regulation and frequency response), the Entitlement Parties may satisfy ancillary services requirements either from Aggregate Entitlement or otherwise in their discretion. The parties acknowledge that as of the date of this Agreement the regulation and frequency response requirement of the Entitlement Parties is 2% of the Aggregate Entitlement.
- (c) B.C. Hydro will provide to the Entitlement Parties, either at the Plants or at the Kootenay Interconnection, for the use of the Entitlement Parties or for the provision by an

Entitlement Party to a third party, at no cost to the Entitlement Parties, ancillary services provided by generation resources that cannot be provided by the Entitlement Parties through the use of their Aggregate Entitlement to the extent that:

- (1) such ancillary services are requested by the Entitlement Parties on adequate notice to B.C. Hydro;
- (2) the Entitlement Parties would, without the obligations to B.C. Hydro under this Agreement, be actually capable of providing such ancillary services from the Plants assuming the Plants were operated in a manner consistent with the expected operational practices and dispatch limitations used to determine the Aggregate Entitlement; and
- (3) such capabilities are not being called upon from the Plants by the Entitlement Parties consistent with the terms of this Agreement.

6.8 Remedial Action Schemes

- (a) As the parties participate in remedial action schemes with respect to the operation of the Kootenay Interconnection that are determined to be required to reliably run the system or systems, pursuant to their various Interconnection Agreements, the parties will endeavour to cooperate fully with each other and their respective operations. The parties agree to submit resources for remedial action schemes in an equitable manner having regard to the assistance that the various generation resources can provide.
- (b) Each of the parties does not and will not have any arrangement with any other party whereby B.C. Hydro would be called on to execute remedial action schemes with respect to the Kootenay Interconnection other than in accordance with Good Utility Practice and with the same degree of fairness as it would use for other generation units and load participating in remedial action schemes within the B.C. Control Area.
- (c) If at any time there is any dispute with respect to procedures to be followed or resources required or determinations of requirements of remedial action schemes with respect to the Kootenay Interconnection, the parties' respective systems will be operated, pending dispute resolution, in accordance with Good Utility Practice.

7. TRANSMISSION FACILITIES AND INTERCONNECTION

7.1 Entitlement Parties Transmission

The Entitlement Parties will continue to ensure that adequate transmission facilities are provided and maintained on the Entitlement Parties' System to provide for optimum generation of the Plants.

7.2 Kootenay Interconnection

Except for temporary disconnections permitted in any of the Interconnection Agreements, the parties will use all reasonable efforts to ensure that the B.C. Hydro System and the Entitlement Parties' System remain interconnected at the Kootenay Interconnection.

7.3 Kootenay Interconnection Transmission Facilities

B.C. Hydro and the Entitlement Parties acknowledge that as of the date of this Agreement the B.C. Hydro System and the Entitlement Parties' System are sufficient to satisfy their respective obligations under this Agreement, including obligations arising from the Waneta Expansion provided the planned 230 kV transmission additions from the Waneta Expansion to B.C. Hydro's Selkirk substation (which additions will form a part of the Entitlement Parties' System) are constructed.

7.4 Transfer Limits and Transmission Capabilities

The Operating Committee will develop one or more Operating Procedures with respect to transfer limits and transmission capability taking into account:

- (a) Section 7.3;
- (b) the transfer limits at the Kootenay Interconnection under both system-intact and contingency conditions;
- (c) the amount of transmission capability required for Coordination Transfers; and
- (d) the requirements of the B.C. Control Area operator.

7.5 No Wheeling Charges on Coordination Transfers

None of the parties will charge any other of the parties for the delivery or receipt of Coordination Transfers, all of which are deemed to occur at the Kootenay Interconnection.

7.6 BC Hydro's Share of Actual Generation

For the duration of any outage of "Line 71", FortisBC will allow "BC Hydro's Share of Actual Generation" (as each of those terms is defined in the Co-Ownership and Operating Agreement) to be transmitted on the Entitlement Parties' System from the Waneta Plant to B.C. Hydro's System, at no cost to any party, on transmission capacity which FortisBC owns or has the right to use.

8. SCHEDULING

8.1 Kootenay Interconnection Scheduling Point

The parties acknowledge that the Kootenay Interconnection has been established as a single point for scheduling and applicable rate determination purposes and that the Kootenay Interconnection has been established as a single scheduling point on B.C. Hydro's scheduling system for wholesale transmission service (referred to as OASIS at the time of this Agreement). Throughout the term of this Agreement B.C. Hydro and the Entitlement Parties will use all reasonable efforts to ensure that the Kootenay Interconnection is maintained as a single point for scheduling and applicable rate determination purposes.

9. WATER FEES

9.1 Responsibility for Water Licence Fees

Each Entitlement Party will be responsible for the timely payment of all fees, levies and other charges ("**Water Fees**") related to the Water Licences issued to the Entitlement Party. For certainty, in the case of the Waneta Plant, and unless Teck and B.C. Hydro otherwise agree, Teck's responsibility for payment of Water Fees respecting Water Licences relating to the Waneta Plant is based on the Teck Participation Percentage in the Waneta Plant and is as provided for in the Co-Ownership and Operating Agreement.

9.2 Statement to B.C. Hydro

Subject to Section 9.3, each Entitlement Party will, no later than February 28th of each year (or such other date determined by the Operating Committee), send to the person or office designated by B.C. Hydro for the purpose of this Section a statement, with reasonable supporting documentation, setting out:

- (a) the Water Fees payable by the Entitlement Party in the current year; and
- (b) the Water Fees that would have been payable by the Entitlement Party in that year if the Water Fees had been based on the Entitlement Party's Entitlement Energy usage, less any Entitlement Energy used for spill, in the previous calendar year.

9.3 Netting by Agent

For the purposes of Section 9.2, two or more Entitlement Parties may appoint an agent which may combine the statements of such Entitlement Parties and notify B.C. Hydro accordingly on a net basis.

9.4 Adjusting Payment by B.C. Hydro

If the amount under Section 9.2(a) exceeds the amount under Section 9.2(b), B.C. Hydro will pay the Entitlement Party the amount of the excess on or before the day(s) the Water Fees are due.

9.5 Adjusting Payment by Entitlement Party

If the amount under Section 9.2(b) exceeds the amount under Section 9.2(a), the Entitlement Party will pay B.C. Hydro the amount of the excess on or before the day(s) the Water Fees are due.

9.6 Limitation on Adjustment

In addition to and separate from the adjustment contemplated in Section 9.4, if:

- (a) the process or method by which the Comptroller of Water Rights ("**CWR**") determines the Water Fees payable by Teck or WELP for any year varies from that set out in the Methodology for Determining Energy Generation Based on Water Licence Rights ("**Methodology**") attached to the May 3, 2012 letter from the CWR to Teck, WELP and BC Hydro; and
- (b) as a result of such change, Water Fees for some or all of the energy that would have been billed to Teck in accordance with the Methodology for that year are payable by

WELP in that year, and were computed using a rate for some or all of that energy that is higher than the rate that would have been applicable if billed to Teck in accordance with the Methodology (the amount of energy at such higher rate, multiplied by the difference between the higher rate and the rate that would have been applicable if billed to Teck in accordance with the Methodology (herein referred to as the **"Incremental Water Fees"**),

then Teck and WELP will each be responsible for, and will pay to BC Hydro, 50% of the Incremental Water Fees.

9.7 Modifications

If the process or method for assessing or collecting Water Fees changes, the parties will determine what, if any, consequential amendments are required to this Section 9 and will amend this Section 9 accordingly. If the parties are unable to agree on the required consequential amendments, any party may submit the dispute to arbitration in accordance with Section 12.2. The arbitrator is authorized to amend this Section 9 for the limited purpose of making any such required consequential amendments.

10. ENVIRONMENTAL CREDITS

10.1 Environmental Credits

Nothing in this Agreement is intended to transfer Environmental Credits and the parties intend that each party will retain any and all Environmental Credits related to its Plant(s), except to the extent otherwise agreed by separate agreement. If, notwithstanding such express intention, any party receives Environmental Credits related to another party's Plant(s), the receiving party will promptly execute and deliver such documents and instruments reasonably required to transfer the Environmental Credits to the Plant owner. For greater certainty, as between B.C. Hydro and FortisBC, FortisBC will be entitled to those Environmental Credits that the FortisBC Plants would have earned in the absence of this Agreement and in the absence of Libby Dam and Duncan Dam.

11. OPERATING COMMITTEE

11.1 Establishment of Committee

The Operating Committee established pursuant to the First Amended and Restated 2005 Canal Plant Agreement is carried over and continues to be the Operating Committee for purposes of this Agreement, consisting, from the date of this Agreement, of six representatives appointed as follows:

- (a) two appointed by B.C. Hydro;
- (b) one appointed by FortisBC;
- (c) one appointed by Teck;
- (d) one appointed jointly by BPC and BEPC; and
- (e) one appointed by WELP.

Each representative will serve on the Operating Committee until notice has been given by the appointing party(ies) to the other parties of their successor.

11.2 Chair of Operating Committee

Responsibility for chairmanship of the Operating Committee will rotate among the parties annually, unless the members of the Operating Committee otherwise agree from time to time.

11.3 Alternate Representatives

Each party will give notice to the other parties of an alternate representative for each of its representatives appointed under Section 11.1, who will serve on the Operating Committee during any inability or absence of such representative.

11.4 Meetings

The Operating Committee will meet (in person at a location convenient to the parties or by telephone or video conference) as often as required to carry out its duties and responsibilities under this Agreement, and at least once each Operating Year, and will keep written records of its meetings and determinations. Any party may require that a meeting of the Operating Committee be held by giving notice of the time and location (or telephone or video conference arrangements) and notice of the topics to be discussed at the meeting, to the other parties at least 10 days prior to the date of the meeting. A quorum for a meeting of the Operating Committee will be one representative or alternate representative of each party, except that if a quorum has not been present at two consecutive meetings for which proper notice has been given, the quorum for the next meeting will be those representatives or alternate representatives in attendance. The Operating Committee will establish additional rules, procedures and terms of reference governing its own meetings and determinations.

11.5 Unanimity Required

No decision or action of the Operating Committee will be effective unless it has been approved at a duly constituted meeting as follows:

- (a) if the decision or action affects or may affect some but not all of the parties, by the affirmative votes of the representatives of all of the affected parties, provided that:
 - (1) those parties (the “**Notifying Parties**”) who believe they are all of the affected parties give notice of the proposed decision or action to the other parties at least 14 days prior to the meeting, such notice stating that it is given pursuant to Section 11.5 and setting out in reasonable detail the reasons why the Notifying Parties believe that they are all of the parties affected by the proposed decision or action; and
 - (2) none of the other parties has, by notice to the Notifying Parties, disputed the right of the Notifying Parties to make the decision or take the action or it has been determined under Section 12 that the Notifying Parties have such right; and
- (b) otherwise, by the affirmative votes of all representatives present at the meeting.

11.6 Role of Operating Committee

The Operating Committee:

- (a) will in a timely manner develop and approve Operating Procedures which are reasonably required to implement this Agreement;
- (b) may, from time to time, modify, terminate or replace Operating Procedures and will modify, terminate or replace Operating Procedures as may be reasonably required to implement this Agreement;
- (c) will re-determine the Aggregate Entitlement from time to time in accordance with Schedule A;
- (d) will make such determinations, take such actions and perform such other roles and responsibilities as are contemplated by this Agreement, or as the parties direct; and
- (e) will promptly notify the parties of all Operating Procedures, modifications or replacements of Operating Procedures and other actions and decisions taken by the Operating Committee pursuant to this Agreement.

The Operating Committee will cooperate with the operating committees appointed pursuant to the Interconnection Agreements, meeting together as reasonably necessary, on all issues related to the Kootenay Interconnection.

11.7 Compliance With Legal Obligations and Good Utility Practice

The Operating Committee will at all times observe and comply with the provisions of this Agreement in a reasonable and timely manner and will not develop or allow to remain in effect any Operating Procedure, amend Schedule A or Schedule B or decide any technical issue in a manner that is inconsistent with a party's Legal Obligations or Good Utility Practice.

11.8 Operating Procedures Binding

Each Operating Procedure developed by the Operating Committee in accordance with the terms of this Agreement will be binding on each of the parties from the date it is delivered to the parties, or such other date specified in the Operating Procedure, until the date it is modified, terminated or replaced by the Operating Committee or one or more of the parties (if the Operating Procedure allows for termination by one or more of the parties), or such other date specified in the Operating Procedure, and the parties will take all reasonable steps necessary to implement the Operating Procedures. If a particular circumstance arises that is not covered by an Operating Procedure, the parties will act in accordance with Good Utility Practice.

11.9 Operating Procedures in Place

The following Operating Procedures have been developed and approved by the Operating Committee, as evidenced by the members' signatures thereon, and continue in effect as of the date of this Agreement:

Procedure No.	Subject
001	Maintenance of Operating Procedures
002	Assignment of Operating Responsibilities
003	Contacts for CPA Administration
004	Typical Data Exchange
005	Metering Estimates
006	Reports to Entities External to the CPA
007	Operating to and Compliance with the IJC
008	Flow Requirements for Waneta Plant
009	Coordination with Columbia River Treaty Operations
010	Kootenay Flow Below Brilliant
011	Operating and Maintenance Cost of Gauges
012	Incremental Discretionary Operating Costs
013	Scheduling Annual Maintenance Outages
014	Short Outage Durations for Minor Maintenance
015	Coordinating and Implementing Scheduled and Unscheduled Outages
016	Trashrack Cleaning
017	Transmission & Network Restrictions
018	Entitlement Accounting for Startup Failures
019	Entitlement Accounting for Discretionary Spills
020	Entitlement Accounting Procedures [not complete]
021	Operating Reserve
022	Forebay Constraints
023	CPA Load and Scheduling Information Exchange
024	Control Area Services and Ancillary Services
025	Transmission Capacity Requirements
026	Entitlement Parties' Obligations Arising from October 1993 Power Purchase Agreement
027	Hourly Aggregate Entitlement Use [to be revised and incorporated in OP 020]
028	Updating Schedule A and Tables on Re-Determination

The parties acknowledge that as at the date of this Agreement the foregoing Operating Procedures are consistent with the parties' Legal Obligations and Good Utility Practice and are reasonably required to implement this Agreement, subject to completion of Operating Procedure 020 (incorporating Operating Procedure 027) consistent with this Agreement and updates and revisions to Operating Procedures 4, 21, 23, 24 and 26.

12. DISPUTE RESOLUTION

12.1 Referral to Senior Executives

If two or more parties (in this Section 12, the "**Dispute Parties**") have a dispute arising out of or in connection with this Agreement, including: (1) the interpretation of any provision of this Agreement or any Operating Procedure; or (2) the failure by the Operating Committee to make a determination on a matter required hereunder to be determined by it, to take an action or to carry out any role or responsibility conferred on it under this Agreement (including a dispute over whether an Operating Procedure is reasonably required to be developed, modified, terminated or replaced and the terms thereof), the Dispute Parties will first refer the dispute for resolution to Senior Executives of the Dispute Parties, and each Dispute Party will promptly appoint one of its Senior Executives for this purpose.

12.2 Referral to Arbitration

If the Senior Executives appointed under Section 12.1 are unable to resolve the dispute within 30 days of its first reference to them or if any Dispute Party fails to appoint a Senior Executive for that purpose, then any of the Dispute Parties may after the end of such 30 day period or upon failure of a Dispute Party to promptly appoint a Senior Executive for that purpose, submit the dispute to arbitration under the *Commercial Arbitration Act* (British Columbia). The arbitration will be by a single arbitrator knowledgeable in such matters. The award of the arbitrator will be final and binding on the Dispute Parties as set out in the *Commercial Arbitration Act* (British Columbia).

If the dispute involves an Operating Procedure or proposed Operating Procedure, or relates to a matter that the Operating Committee is required to address under Section 11.6 (including the failure to make a determination by reason of the required members of the Operating Committee failing to agree on the determination), the arbitrator is hereby authorized and directed to make the required determination (including to develop any Operating Procedure or modify, terminate or replace any Operating Procedure) in order to resolve the dispute. Any such determination by the arbitrator will be deemed to have been a determination by the Operating Committee. No award or determination of an arbitrator may be inconsistent with the terms and conditions of this Agreement.

12.3 Equitable Remedies

The parties acknowledge that a declaratory judgment or damages may provide an inadequate remedy for breach of the provisions of this Agreement, and accordingly each party will be entitled to seek specific performance, injunction or other similar remedy to ensure full and proper performance by the other party of its obligations under this Agreement. Such remedy may only be sought from the arbitrator appointed under Section 12.2.

13. TERM AND TERMINATION

13.1 1971 Agreement

This Agreement is made pursuant to the 1971 Agreement.

13.2 Term

This Agreement will be effective on the date hereof, or such other date agreed by all parties, and will continue in force and effect, unless terminated earlier by the agreement of all parties, until the termination date, not to be less than five years after the date of the notice, set out in a notice given by any party to all of the other parties at any time on or after December 31, 2030.

13.3 Amendment and Restatement

The First Amended and Restated 2005 Canal Plant Agreement is amended and restated in its entirety by this Agreement.

13.4 Benefit Extension Agreement

Teck and Brilliant Power Corporation acknowledge and agree that this Agreement is an agreement with B.C. Hydro as contemplated by section 2.1(c) of the Benefit Extension Agreement.

13.5 Obligations Survive

All obligations of the parties which arise prior to the termination of this Agreement will survive such termination. Affected parties will within 180 days of termination agree on a purchase price or alternative delivery provision for any balances remaining in Exchange Accounts as of the termination date and, failing agreement, the matter will be determined under Section 12.

14. GENERAL PROVISIONS

14.1 Consents and Waivers

No consent or waiver, express or implied, by any party to or of any breach or default by any other party of any or all of its obligations under this Agreement will:

- (a) be valid unless it is in writing and stated to be a consent or waiver pursuant to this Section 14.1;
- (b) be relied on as a consent to or waiver of any other breach or default of the same or any other obligation;
- (c) constitute a general waiver under this Agreement; or
- (d) eliminate or modify the need for a specific consent or waiver pursuant to this Section in any other or subsequent instance.

14.2 Amendment

Except as otherwise provided herein, this Agreement may not be amended except by written agreement between the parties. Any two or more parties (in this Section, the “**Amending Parties**”) may amend this Agreement without the agreement of the other parties, and such amendment will be effective, if:

- (a) the amendment does not and will not affect the rights or obligations of any of the other parties, except to the extent any affected party has agreed;
- (b) the Amending Parties give notice of the proposed amendment to the other parties at least 90 days before the date on which the proposed amendment is by its terms to become effective;
- (c) none of the other parties has disputed the right of the Amending Parties to make the proposed amendment or it has been determined under Section 12 that the Amending Parties have such right; and
- (d) an originally signed copy of the amendment has been delivered to each of the parties.

14.3 Permitted Assignment by an Entitlement Party

An Entitlement Party may assign any or all of its rights under this Agreement:

- (a) to a corporation, joint venture or partnership that: (1) concurrently purchases one or more Plants from the assignor (and the assignment is of all rights and obligations relating to the purchased Plant(s)); and (2) enters into an agreement in favour of all other parties to this Agreement confirming that the assignee is bound by this Agreement to the extent of the assignment;
- (b) as security to any of its lenders;
- (c) as security to any entity to secure an obligation to deliver power; or
- (d) in the case of B.C. Hydro and Teck, to each other to secure obligations under the Co-Ownership and Operating Agreement,

and an Entitlement Party will not sell any of its Plants unless it also assigns its rights under this Agreement relating to such Plant to the purchaser and the purchaser assumes the obligations under this Agreement relating to such Plant. A reduction in the Teck Participation Percentage and a corresponding increase in B.C. Hydro's interest in the Waneta Plant is not a sale of the Waneta Plant for the foregoing purposes. As a condition of assigning any or all of its rights under this Agreement as security pursuant to Sections 14.3(b) or 14.3(c), an assigning Entitlement Party will first require that the party to be secured enters into an agreement with B.C. Hydro and the Entitlement Party on such terms as B.C. Hydro, the Entitlement Party and the secured party require, acting reasonably, dealing with the parties' rights and obligations arising from the granting of security and any default under such security.

Except in the circumstances described in the last two sentences of this paragraph, if B.C. Hydro acquires legal or beneficial ownership or control of an Entitlement Party or acquires a Plant then, unless otherwise agreed, the parties will negotiate in good faith to make such amendments to this Agreement and other agreements, or to enter into such new agreements, as are necessary to remove the acquired Entitlement Party and its Plant(s) or to remove the acquired Plant, as the case may be, from this Agreement, having regard to the existing rights, benefits and obligations of the parties, including those of each of the Entitlement Parties in the CPA Subagreement. A reduction in the Teck Participation Percentage to but not below 50.001% in, and a corresponding increase in B.C. Hydro's interest to but not above 49.999% in, the Waneta Plant, is not an acquisition by B.C. Hydro of the Waneta Plant for purposes of this Section 14.3. If the parties cannot agree on the necessary amendments to this Agreement and other agreements, or on the terms of any new agreements, then the dispute respecting such amendments or terms will be subject to dispute resolution in accordance with Section 12. If B.C. Hydro acquires the Brilliant Plant or legal or beneficial ownership or control of the entity owning the Brilliant Plant, and has not acquired FortisBC or its successor under the Brilliant Power Purchase Agreement made between Columbia Power Corporation, CBT Power Corp. and West Kootenay Power Ltd. as of the 4th day of April 1996 (the "**PPA**"), then for so long as the PPA remains in effect and B.C. Hydro has not acquired FortisBC, the Brilliant Plant will remain in this Agreement. For the purposes of this paragraph, "control" has the meaning given to it in section 2(3) of the *Business Corporations Act* (British Columbia).

14.4 Release of Assignor

If, in accordance with Section 14.3(a) an Entitlement Party has assigned to a corporation, joint venture or partnership that purchases one or more of the Entitlement Party's Plants all of the Entitlement Party's rights and obligations relating to the purchased Plant(s), it will be released from and have no further

obligations under this Agreement with respect to that Plant or those Plants as the case may be. If an Entitlement Party has assigned all of its rights under Section 14.3(a) to one or more corporations, joint ventures or partnerships that purchase all of the Entitlement Party's Plants, it will be released from and have no further obligations under this Agreement.

14.5 Permitted Assignment by B.C. Hydro

B.C. Hydro may assign any or all of its rights under this Agreement:

- (a) as security to any of its lenders; or
- (b) as security to any entity to secure an obligation to deliver power.

As a condition of assigning any or all of its rights under this Agreement as security, B.C. Hydro will first require that the party to be secured enters into an agreement with the Entitlement Parties and B.C. Hydro on such terms as B.C. Hydro, the Entitlement Parties and the secured party require, acting reasonably.

14.6 No Other Assignment Without Consent

Except as provided for in Section 14.3 or 14.5, no party may assign any right, benefit or interest in or under this Agreement without written consent of the other parties not to be unreasonably withheld. In particular, without limiting the generality of the foregoing, a lender to a party holding this Agreement as security may not assign any right, benefit or interest in or under this Agreement, other than in the manner contemplated in Section 14.3(a), without the written consent of the other parties.

14.7 Enurement

This Agreement will enure to the benefit of and be binding upon the parties and their respective successors and permitted assigns.

14.8 Further Assurances

Each party will at its own expense, execute and deliver all such further agreements and documents and do such further acts and things as may be reasonably required to give effect to this Agreement.

14.9 Notice

Every notice, request, demand or direction required or permitted to be given under this Agreement must be made or given in accordance with the Operating Procedures.

14.10 No Partnership

Nothing herein nor any action taken pursuant hereto will be construed as creating a partnership, joint venture or other similar entity of any kind or as imposing upon any party any duty, obligation or liability as a partner or joint venturer.

14.11 Conflict With Other Agreements

If the provisions of this Agreement conflict or are inconsistent with the provisions of the 1971 Agreement, the provisions of this Agreement will govern and the provisions of the 1971 Agreement will be so construed.

14.12 Confidentiality

- (a) Each party may, at any time whether before or after delivery, designate specific data and information (“**Confidential Information**”) that it wishes to keep confidential for the purpose of this Section 14.12 and for a period of five years (or such shorter period as may be set out in the designation) after such designation each of the other parties will not, unless the Confidential Information was already in its possession or in the public domain, or unless required by law or to comply with regulatory requirements or requirements of the operator of the B.C. Control Area and then only after reasonable notice to the designating party, disclose any Confidential Information without the prior written consent of the designating party; provided that, subject to Section 14.12(b), nothing in this Section 14.12(a) will limit disclosure of Confidential Information to such of their or their affiliates’ directors, officers, employees, agents, professional advisors or consultants, or any other person with the consent of the designating party, in each case who need to have access to such Confidential Information for the performance of this Agreement and the optimum dispatch of the B.C. Hydro generation resources and the Plants or the reliable operation of its system. The parties will take all reasonable precautions to ensure that any such persons to whom Confidential Information is disclosed abide by the obligation of confidentiality under this Section 14.12(a).
- (b) If, as a result of this Agreement, a party (the “**Receiving Party**”) receives data or information respecting another party’s (the “**Subject Party**”) schedules in addition to the data and information to be provided pursuant to an Operating Procedure with respect to information exchange in effect as of the date of this Agreement (“**Additional Information**”), and the Subject Party, acting reasonably, designates such Additional Information as “commercially sensitive” then the Receiving Party will put into place reasonable measures to limit disclosure of the designated Additional Information (including measures to prevent disclosure of the designated Additional Information to any person directly engaged in the marketing and sales operations of the Receiving Party or its agents or affiliates); provided, however, that such measures will not impair the Receiving Party’s ability to fulfil its rights and obligations under this Agreement and will not require the Receiving Party to effect any change to its organizational structure or to that of its affiliates.

14.13 Counterpart Execution

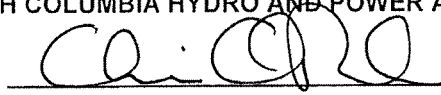
This Agreement may be executed in several counterparts, each of which so executed will be deemed to be an original, and such counterparts together will constitute but one and the same.

14.14 Electronic Delivery

Delivery by a party of an executed copy of this Agreement by electronic means will be effective delivery, but that party will promptly also deliver in person to the other parties an originally executed copy of this Agreement.

IN WITNESS WHEREOF the parties hereto have executed this Agreement as of the day and year first above written.

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

Per: 
Authorized Signatory

FORTISBC INC.

Per: _____
Authorized Signatory

TECK METALS LTD.

Per: _____
Authorized Signatory

BRILLIANT POWER CORPORATION

Per: _____
Authorized Signatory

BRILLIANT EXPANSION POWER CORPORATION

Per: _____
Authorized Signatory

**WANETA EXPANSION LIMITED PARTNERSHIP, by its
general partner Waneta Expansion General Partner Ltd.**

Per: _____
Authorized Signatory

Per: _____
Authorized Signatory

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BRILLIANT EXPANSION POWER CORPORATION

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BRILLIANT POWER CORPORATION

Per: _____
Authorized Signatory

BRILLIANT EXPANSION POWER CORPORATION

Per: _____
Authorized Signatory

**WANETA EXPANSION LIMITED PARTNERSHIP, by its
general partner Waneta Expansion General Partner Ltd.**

Per: _____
Authorized Signatory

Per: _____
Authorized Signatory

SCHEDULE A

ENTITLEMENT CALCULATION, ADJUSTMENT AND RE-DETERMINATION

1. INTERPRETATION

1.1 Definitions

In addition to the other defined terms in this Agreement, in this Schedule:

“Available Flow” at a Plant means monthly average stream flows at the Plant during the Stream Flow Record Period, determined as set out in Section 2 of this Schedule A;

“Brilliant Target Minimum” means the amount set out under the heading “KL Curve 3 – Brilliant Min Flows” in Table 6;

“CPA Tables Workbook” means the Excel workbook incorporating the principles and calculations described in this Schedule A that is used to calculate the Entitlement Energy and Entitlement Capacity for the Plants based on the results of the studies performed using the Entitlement Calculation Program as described in this Schedule A, a revised copy of which, incorporating the changes necessary to implement the revisions related to inclusion of the Waneta Expansion, and which includes all new and updated Tables, has been developed by B.C. Hydro and the Entitlement Parties;

“Entitlement” in respect of a Plant means the Entitlement Energy and/or Entitlement Capacity attributable to that Plant;

“Entitlement Calculation Program” means the computer program incorporating the principles and calculations described in this Schedule A, developed in Excel with Visual Basic programming language, that is used to assist in calculating the Entitlement Energy and Entitlement Capacity for the Plants based on the applicable Available Flow and Plant Characteristics, a revised copy of which, incorporating the changes necessary to implement the revisions related to inclusion of the Waneta Expansion, and which includes new and updated Tables, has been developed by B.C. Hydro and the Entitlement Parties;

“Flow at Maximum Generation Capacity” of a Plant means the lowest flow that achieves the Maximum Generation Capacity as determined under Section 3.3 of this Schedule A and as set out in Table 7;

“Generation Versus Flow Characteristics” for a Plant means the power generated at the Plant (measured at the generator output terminals) as a function of flow at the Plant recognizing Water Licences and, in the case of Corra Linn, as a function of the forebay elevation at the Plant, as set out in Table 7;

“Head Correction Factors” for a Plant means monthly adjustment factors to account for variations in forebay elevations at the Plant throughout the year, as described in Section 3.4 of this Schedule A and as set out in Table 8;

“Maximum Generation Capacity” of a Plant means the amount set out for that Plant in the row “Max. Gen - MW” in Table 7 and as determined in Section 3.3 of this Schedule A;

“Monthly Energy Generation” has the meaning set out in Section 4.3(a) of this Schedule A;

“Monthly Generation Capacity” has the meaning set out in Section 4.2(g) of this Schedule A;

“Monthly Average Generation Capacity” has the meaning set out in Section 4.2(g) of this Schedule A;

“Plant Characteristics” of a Plant means the Plant’s Generation Versus Flow Characteristics, Maximum Generation Capacity, Flow at Maximum Generation Capacity, Head Correction Factors, Brilliant Target Minimum and Waneta Minimum, as further described in this Schedule A;

“Regulated Stream Flow” means the stream flow that would have occurred during the Stream Flow Record Period assuming the existence throughout the Stream Flow Record Period of the expected annual operation of upstream storage and diversions into and out of the basin from time to time during the term of this Agreement including, in the case of the Brilliant Facilities, the Duncan and Libby storage regulation;

“Stream Flow Record Period” means August, 1938 to July, 1988, inclusive;

“Unregulated Stream Flow” means the natural stream flow that would have occurred during the Stream Flow Record Period assuming the absence of regulation at upstream facilities, and is set out in Tables 1 and 2; and

“Waneta Minimum” means the minimum flow constraints applicable to the Waneta Facilities (including either or both of the Waneta Plant and the Waneta Expansion) as required by Legal Obligations applicable to such facilities from time to time, which is reflected in Section 4.2(c) of this Schedule A as at the date of this Agreement).

1.2 Tables

The following Tables are attached to and form part of this Schedule:

Table No.	Description
1	Kootenay Lake Inflows: Unregulated
2	Local Inflows between Corra Linn and Brilliant
3	Inflows for the Waneta Facilities
4	Kootenay Lake Inflows: Regulated
5	Kootenay Lake Inflows: Regulated with Non-Power
6	Target Monthend Elevations – Kootenay Lake @ Queens Bay
7	Plant Characteristics: Generation Versus Flow
8	Plant Characteristics: Head Correction Factors
9	Entitlement Summary
10	Entitlement Reductions for Outages
10a	Energy Entitlement Adjustments: Fortis-BC Planned Outages

Table No.	Description
11	Data and Program Flow Chart
12	[intentionally left blank]
13	[intentionally left blank]
14	[intentionally left blank]
15	[intentionally left blank]
16	Plant Characteristics, Legal Obligations applicable to Seven Mile

Reference to a Table means the Table as amended from time to time in accordance with this Agreement.

1.3 Study and Output Precisions

Input and output data will be carried to the following precisions:

Data	Units	Decimal Places	Excel@Round Specifier
1) Model Inputs			
Gen Table MW	MW	2	2
Gen Table Flow	cfs	100's	-2
Head Correction Factors		3	3
KL Target Elevations	Feet	2	2
Min Flows	cfs	100's	-2
Inflows	cfs	0	0
BRX Flow Increment	cfs	0	0
Max Generation Capacity	MW	1	1
2) Model Display: Show all decimal places used in the model			
3) Model Output			
Energy Entitlement	GW.h/month	3	3
Capacity Entitlement	MW	1	1
Energy Ent Adjustment (note 1)	MW.h/h	1	1
Capacity Ent Adjustment (note 1)	MW	1	1
Adjustment Factor		5	5

Note 1: Adjustments for Unit Derates and Unit Outages

2. ENTITLEMENT CALCULATION PRINCIPLES

2.1 Purpose

This Section 2 documents the general principles used to compute the Aggregate Entitlement, the stream flow data used and describes how the Available Flow is determined at each Plant.

2.2 Principles

The Entitlement determinations are based on the following principles:

- (a) For the Waneta Plant, or the Waneta Facilities after WAX Start-up, the determination incorporates expected stream flow regulation provided at all projects upstream;
- (b) For all FortisBC Plants, the determination excludes stream flow regulation provided by the Libby and Duncan projects, but includes stream flow regulation provided at Kootenay Lake;
- (c) For the Brilliant Plant, the determination for the Plant prior to Upgrades excludes stream flow regulation provided by the Libby and Duncan projects, but includes stream flow regulation provided at Kootenay Lake;
- (d) For the Upgrade portion of the Brilliant Plant and the Brilliant Expansion, the determination incorporates incremental stream flow regulation energy benefits attributable to the Brilliant Upgrades and the Brilliant Expansion provided by all projects upstream. Subject to any other applicable agreement:
 - (1) if B.C. Hydro elects to retain compensation it receives in respect of generation losses at the Brilliant Facilities resulting from changes to upstream project regulation (as it has for the Brilliant Upgrade project), the determinations will use an upstream regulation that reflects the expected operation of upstream projects prior to implementation of such changes; and
 - (2) if B.C. Hydro does not receive compensation or elects to flow the compensation through to project owners, the determinations will use an upstream regulation that reflects the implementation of such changes;
- (e) Because of: (i) an agreement between BPC and B.C. Hydro to include incremental stream flow regulation energy benefits in the determination of Entitlements for the Brilliant Upgrades and Brilliant Expansion projects and (ii) operational changes to the Brilliant forebay levels implemented by BPC coincident with these projects, multiple studies using the Entitlement Calculation Program to determine the Entitlement attributable to the Brilliant Facilities under a number of configurations and incorporating alternative stream flow data sets are required, as follows:
 - (1) Study B0U – Base Brilliant 1475/1477 Unregulated

This study incorporates the Generation Versus Flow Characteristics for the base Brilliant Plant, prior to the Brilliant Upgrades and Brilliant Expansion and operating under historical forebay levels of elevation 1477 feet from Sep 1 to Apr 15 and 1475 feet during the balance of the year. This study uses the Unregulated Stream Flow data for Kootenay Lake (Table 1) and Kootenay Lake target elevations (Table 6, KL Curve 1);

(2) Study B1U – Base Brilliant 1477 Unregulated

This study incorporates the Generation Versus Flow Characteristics for the base Brilliant Plant operated continuously at elevation 1477 feet, the Unregulated Stream Flow data for Kootenay Lake (Table 1)) and Kootenay Lake target elevations (Table 6, KL Curve 1);

(3) Study B1R – Base Brilliant 1477 Regulated

This study incorporates the Generation Versus Flow Characteristics for the base Brilliant Plant operated continuously at elevation 1477, Regulated Stream Flow data for Kootenay Lake based on Columbia River Treaty assured operating plan operation (Table 4)¹ and Kootenay Lake target elevations (Table 6, KL Curve 2).

(4) Study B2U – Upgraded Brilliant Unregulated

This study incorporates the Generation Versus Flow Characteristics for the upgraded Brilliant Plant operated continuously at elevation 1477, Unregulated Stream Flow data for Kootenay Lake (Table 1) and Kootenay Lake target elevations (Table 6, KL Curve 1).

(5) Study B2R – Upgraded Brilliant Regulated

This study incorporates the Generation Versus Flow Characteristics for the upgraded Brilliant Plant operated continuously at elevation 1477 feet, Regulated Stream Flow data for Kootenay Lake based on the Columbia River Treaty assured operating plan operation (Table 4) and Kootenay Lake target elevations (Table 6, KL Curve 2).

(6) Study B3R – Brilliant Facilities Regulated

This study incorporates the Generation Versus Flow Characteristics table (Table 7) for the Brilliant Facilities operated continuously at elevation 1477, the best estimate of actual upstream storage regulation, including expected non-power operations at Libby (Table 5), minimum flow constraints applicable under the Brilliant Expansion water licence and Kootenay Lake target elevations (Table 6, KL Curve 3).

- (f) The Entitlement Energy and Entitlement Capacity attributable to the Brilliant Facilities is separated into several component parts:

¹ Studies related to the Brilliant Upgrades incorporating Regulated Stream Flows (Studies B1R and B2R) currently make use of Columbia River Treaty assured operating plan flows. Because of new non-power constraints introduced to the operation of Libby, actual Regulated Stream Flows generally produce slightly lower levels of stream flow regulation benefits. However, in accordance with CPA Schedule A Section 2.2(d)(1), these studies currently incorporate assured operating plan flows because B.C. Hydro is presently being compensated for this change in Libby operation under the Libby Coordination Agreement.

- (1) Base Brilliant Unregulated 1475/77 – the Entitlement attributable to the Brilliant Plant prior to Upgrades using Unregulated Stream Flows:

The Entitlement Energy is the monthly energy output of Study B0U multiplied by the Adjustment Factor applicable to the Brilliant Plant.

The Entitlement Capacity is the monthly capacity output of Study B0U.

- (2) Base Brilliant Regulated Increment – the increment of Entitlement Energy attributable to the Brilliant Plant Prior to Upgrades using Regulated Stream Flows:

The Entitlement Energy attributable to the difference between the monthly energy output of Study B1R and that of Study B1U is reflective of the stream flow regulation energy benefits that are provided by the base Brilliant Plant and that have historically accrued to B.C. Hydro²; $(B1R - B1U)$.

- (3) Brilliant Upgrade Unregulated Increment – the increment of Entitlement associated with Brilliant Upgrades using Unregulated Stream Flows:

The incremental Entitlement Energy is the difference between the monthly energy output of Study B2U, less that of Study B1U multiplied by the agreed benefit distribution factor ("**BDF**") of 0.98435; $(B2U - B1U) * BDF$.

The incremental Entitlement Capacity is the difference between the monthly capacity output of Study B2U, less that of Study B1U; $(B2U - B1U)$.

- (4) Brilliant Upgrade Regulated Increment – the increment of Entitlement Energy associated with the Brilliant Upgrades having access to Regulated Stream Flows:

The incremental Entitlement Energy attributable to the Brilliant Upgrades having access to Regulated Stream Flows can then be determined as the difference between the stream flow regulation energy benefits provided by the upgraded Brilliant Plant $(B2R - B2U)$ less the stream flow regulation energy benefits provided by the base Brilliant Plant $(B1R - B1U)$ multiplied by the agreed benefit distribution factor ("**BDF**") of 0.97031; $((B2R - B2U) - (B1R - B1U)) * BDF$.

- (5) Upgraded Brilliant Plant:

The Entitlement Energy for the upgraded Brilliant Plant is then determined as the sum of:

² Under the Columbia River Treaty no one in Canada may make use of the improvement in stream flow provided by the Treaty except "with the prior approval of the authority in Canada having jurisdiction" (Columbia River Treaty, Article XI 1.(b)) – i.e. the Provincial government. The Province agreed that B.C. Hydro should retain these benefits through its execution of the 1971 Agreement.

- (A) Base Brilliant Unregulated 1475/77 Entitlement Energy amount (Section 2.2(f)(1) of this Schedule A); plus
- (B) Brilliant Upgrade Unregulated Increment Entitlement Energy amount (Section 2.2(f)(3) of this Schedule A); plus
- (C) Brilliant Upgrade Regulated Increment Entitlement Energy amount (Section 2.2(f)(4) of this Schedule A).

The Entitlement Capacity for the upgraded Brilliant Plant is determined as the sum of:

- (i) the Base Brilliant Unregulated 1475/77 Entitlement Capacity (Section 2.2(f)(1) of this Schedule A); plus
- (ii) the incremental Entitlement Capacity associated with the Brilliant Upgrades based on the regulated flow studies (i.e. the difference between the Entitlement Capacity indicated in Study B2R less that of Study B1R).

Note that the regulated portion of the incremental Entitlement Capacity is defined as zero, and all incremental Entitlement Capacity associated with the Brilliant Upgrades is allocated to the unregulated portion;

- (6) Brilliant Facilities – the Entitlement associated with the combined upgraded Brilliant Plant and Brilliant Expansion using Regulated Stream Flows:

The Entitlement Energy for the Brilliant Facilities is determined directly from the results of Study B3R – i.e. the average monthly energy generation from the Brilliant Facilities multiplied by the Adjustment Factor applicable to the Brilliant Facilities; $B3R \times AF$.

The Entitlement Capacity for the Brilliant Facilities is determined directly from the results of Study B3R.

- (7) Brilliant Expansion Increment – the increment of Entitlement associated with the Brilliant Expansion using Regulated Stream Flows:

The incremental Entitlement Energy attributable to the Brilliant Expansion is derived from the difference between the Entitlement Energy for the Brilliant Facilities less the Entitlement Energy for the upgraded Brilliant Plant.

The incremental Entitlement Capacity for the Brilliant Expansion is determined from the average monthly capacity attributable to the Brilliant Facilities in Study B3R less the Entitlement Capacity for the upgraded Brilliant Plant, and then further adjusted in the months of September to April inclusive to be the greater of:

- (A) the monthly value calculated above, plus 10 MW; and

- (B) the capacity that will result in an 82% monthly capacity factor for the Brilliant Expansion Entitlement Energy for the corresponding month, calculated as: monthly Entitlement Energy (Brilliant Expansion Increment on Table 9) converted to AvMW per month divided by 0.82;
- (g) Prior to WAX Start-up, the Entitlement attributable to the Waneta Plant is determined by an Entitlement Calculation Program model run that incorporates the Generation Versus Flow Characteristics table (Table 7) for the Waneta Plant and the Adjustment Factor applicable to that Plant.
- (h) From and after WAX Start-up, the Entitlement attributable to the Waneta Facilities is to be separated into two component parts, reflecting the different ownership of the Waneta Plant and Waneta Expansion. In addition, the calculation procedure agreed to by the Parties requires additional Entitlement Calculation Program model runs to adjust for the allocation of water rights amongst the Waneta Facilities, as agreed to by the owners of the Waneta Plant and Waneta Expansion in the Sizing Agreement. The following studies are required:
 - (1) an Entitlement Calculation Program model run that incorporates a Generation Versus Flow Characteristics table for the expected coordination of the Waneta Facilities but with turbine discharges limited to 25,000 cfs (Study W1);
 - (2) an Entitlement Calculation Program model run that incorporates a Generation Versus Flow Characteristics table for the expected coordination of the Waneta Facilities but with turbine discharges limited to 46,330 cfs (Study W2);
 - (3) an Entitlement Calculation Program model run that incorporates a Generation Versus Flow Characteristics table for the expected coordination of the Waneta Facilities but with turbine discharges limited to 46,330 cfs plus the lesser of: (i) 7910 cfs; and (ii) the hydraulic capacity of the Waneta Plant less 25,000 cfs (Study W3); and
 - (4) an Entitlement Calculation Program model run that incorporates a Generation Versus Flow Characteristics table for the expected coordination of the Waneta Facilities but with turbine discharges limited only by unit discharge capabilities and water licence limitations (Study W4);
- (i) From and after WAX Start-up, the studies in subsection (h) above will be used to compute the Entitlement for the Waneta Plant and for the Waneta Expansion as follows:
 - (1) The Entitlement Energy attributable to the Waneta Plant is determined as the sum of:
 - (A) the energy attributable to the Waneta Facilities in Study W1, multiplied by the Adjustment Factor applicable to the Waneta Plant, plus
 - (B) the difference between the energy attributable to the Waneta Facilities in Study W3, less the energy attributable to the Waneta Facilities in Study

W2, multiplied by the Adjustment Factor applicable to the use of Waneta Residual Water;

- (2) The Entitlement Capacity attributable to the Waneta Plant is determined as the sum of:
 - (A) the capacity attributable to the Waneta Facilities in Study W1, plus
 - (B) the difference between the capacity attributable to the Waneta Facilities in Study W3, less the capacity attributable to the Waneta Facilities in Study W2.
- (3) The Entitlement Energy attributable to the Waneta Expansion is determined as the sum of:
 - (A) the difference between the Waneta Facilities energy generation from Study W2, less the Waneta Facilities energy generation from Study W1, multiplied by Adjustment Factor applicable to the Waneta Expansion; plus
 - (B) the difference between the Waneta Facilities energy generation from Study W4, less the Waneta Facilities energy generation from Study W3, multiplied by Adjustment Factor applicable to the use of WAX Residual Water.
- (4) The Entitlement Capacity attributable to the Waneta Expansion is determined as the sum of:
 - (A) the difference between the capacity attributable to the Waneta Facilities in Study W2, less the capacity attributable to the Waneta Facilities in Study W1; plus
 - (B) the difference between the capacity attributable to the Waneta Facilities in Study W4, less the capacity attributable to the Waneta Facilities in Study W3.
- (j) The Entitlement attributable to the Waneta Expansion and determined in accordance with subsections (g) through (i) above is subject to the further adjustment agreed to between B.C. Hydro and WELP pursuant to the Bilateral BCH/WELP Agreement referred to in Section 6.10 of this Schedule A. Corresponding adjustments to Table 10 will also be made as appropriate.

2.3 Stream Flow Data

Stream flow data for the Stream Flow Record Period used in the determination of the Aggregate Entitlement is provided in the following Tables:

- (a) Table 1 provides Unregulated Stream Flow data for Kootenay Lake. It is taken from Seasonal Volumes and Statistics, Columbia River Basin 1928-1989, dated July 1993, prepared for Bonneville Power Administration by A. G. Crook Company;
- (b) Table 2 provides Unregulated Local Inflow data occurring between Kootenay Lake and the Brilliant Facilities forebay (Slocan River local inflow), taken from Seasonal Volumes and Statistics, Columbia River Basin 1928-1989, dated July 1993, prepared for Bonneville Power Administration by A. G. Crook Company (difference between Corra Linn inflows and Brilliant Facilities inflows);
- (c) Table 3 provides Regulated Stream Flow data for the Waneta Facilities. This information is as supplied in February 1998 by the Bonneville Power Administration and was developed from a simulation study of the entire Columbia Basin for historical water years from 1928 through 1988, incorporating all power and non-power operating constraints and procedures;
- (d) Table 4 provides the Regulated Stream Flow data for Kootenay Lake and is taken from the Columbia River Treaty Assured Operating Plan for Operating Year 2002-03 System Regulation Study 03-41 for historical water years from 1928 through 1988, dated April 13, 1998 which reflects only power and flood control operation upstream;
- (e) Table 5 provides a Regulated Stream Flow data set for Kootenay Lake and is taken from the 1998 BPA Rate Case for Regulated Stream Flow Data with Sturgeon for historical water years 1929 to 1989 which reflects non-power (i.e. fish-driven) operations upstream; and
- (f) Table 6 provides information on target elevations for Kootenay Lake for expected conditions with Unregulated Stream Flows and Regulated Stream Flows and the applicable minimum flows.

2.4 Available Flow – Waneta Facilities

The Available Flow for the Waneta Facilities used in the determination of Entitlement is set out in Table 3.

2.5 Available Flow – FortisBC Plants

The Available Flow for the FortisBC Plants is the discharge from Kootenay Lake as determined by the Entitlement Calculation Program using the unregulated inflows to Kootenay Lake (Table 1) and the Kootenay Lake target elevations (Table 6). The Entitlement Calculation Program simulates the operation of Kootenay Lake, accounting for its minimum and maximum discharge characteristics as a function of lake elevation to compute the discharge from Kootenay Lake. The Entitlement Calculation Program then computes the elevations of Kootenay Lake at Queen's Bay and the resulting forebay elevations at Corra Linn.

2.6 Available Flow – Brilliant Facilities

The Available Flow at the Brilliant Facilities is determined as follows:

- (a) for the purpose of determining the Entitlement Capacity and Entitlement Energy attributable to the Brilliant Plant without the Brilliant Upgrades or Brilliant Expansion, the Available Flow is the aggregate of:
 - (1) the discharge from Kootenay Lake as determined by the Entitlement Calculation Program in Study B0U; and
 - (2) the local inflows between Kootenay Lake and the Brilliant Plant (Table 2);
- (b) for the purpose of determining the incremental Entitlement Capacity and Entitlement Energy attributable to the Brilliant Upgrades, the Available Flow is the aggregate of:
 - (1) the discharge from Kootenay Lake as determined by the Entitlement Calculation Program in Study B1R; and
 - (2) the local inflows between Kootenay Lake and the Brilliant Plant (Table 2); and
- (c) for the purpose of determining the incremental Entitlement Capacity and Entitlement Energy attributable to the Brilliant Expansion the Available Flow is the aggregate of:
 - (1) the discharge from Kootenay Lake as determined by the Entitlement Calculation Program in Study B3R; and
 - (2) the local inflows between Kootenay Lake and the Brilliant Plant (Table 2).

3. PLANT CHARACTERISTICS

3.1 Purpose and Interpretation

This Section 3 documents the characteristics of each Plant used to determine the Aggregate Entitlement. Where the Plant Characteristics are provided in tabular form, linear interpolation will be used to determine intermediate values as required.

3.2 Generation Versus Flow Characteristics

The performance characteristics of each Plant are aggregated into a table of Generation Versus Flow Characteristics (Table 7). The Generation Versus Flow Characteristics are determined from the best available data, which could include measured data at-site and turbine model studies. They are intended to represent the overall conversion efficiency at each Plant from time to time reflecting the owner's expected operational practices and dispatch limitations, tailwater elevations as a function of total flow (generation plus spill and based on normal operation at projects downstream, if any), actual approach and exit channel losses, water diversion and use rights and other relevant factors. In some cases, (for example the Brilliant Facilities and, after WAX Start-up, the Waneta Facilities) to facilitate separation of Entitlement Energy and Entitlement Capacity as required by project owners, multiple Generation Versus Flow Characteristics tables may be required for each Plant.

In calculating the outputs of the Upper Bonnington Plant, it was assumed that the first 1,400 cfs were available to the Upper Bonnington Plant and the next 1,428 cfs were available to the City of Nelson¹.

3.3 Maximum Generation Capacity and Flow at Maximum Generation Capacity

The Maximum Generation Capacity at each Plant and the Flow at Maximum Generation Capacity are set out in on Table 7. These amounts can be derived from the Generation Versus Flow Characteristics as follows:

- (a) the Maximum Generation Capacity is the largest MW entry for the corresponding Plant; and
- (b) the Flow at Maximum Generation Capacity is the lowest flow corresponding to such Maximum Generation Capacity.

For Corra Linn, these values vary slightly for a range of Kootenay Lake levels. For Aggregate Entitlement computations a constant Flow at Maximum Generation Capacity (corresponding to the flow associated with the majority of the Maximum Generation Capacity values set out in Table 7), which as of the date of this Agreement is established at 13,000 cfs, is assumed and the Maximum Generation Capacity is the capacity at a flow of 13,000 cfs for the appropriate level of Kootenay Lake.

Except for the Brilliant Expansion, for all levels of Available Flow less than the Flow at Maximum Generation Capacity, the Plants are assumed capable of generating at Maximum Generation Capacity on an instantaneous basis. At levels of flow above the Flow at Maximum Generation Capacity, the capacity is reduced as set out in Table 7.

For Brilliant Expansion, where a minimum flow operating restriction is in effect, the Maximum Generation Capacity at the Brilliant Facilities is limited as provided in Section 4.2(b) of this Schedule A.

Selecting KL Curve 3 in Table 6 enables the Entitlement Calculation Program to automatically apply this minimum flow restriction to the capacity calculation of the Brilliant Facilities.

3.4 Head Correction Factors

Head Correction Factors provide adjustments to the Generation Versus Flow Characteristics to reflect annual operations that are different than those assumed in the development of these characteristics. During the period from September 1 through April 15 each year the forebay elevation at South Slocan is raised through the installation of flashboards. This affects the Generation Versus Flow Characteristics at Lower Bonnington due to the impact on Lower Bonnington's tailwater elevation. The half month operation in April is approximated by cutting the adjustment in half in that month. The Head Correction Factors for South Slocan reflect the operation of the Brilliant forebay at 1477 ft. maximum elevation all year (since the South Slocan generation table was derived assuming a Brilliant forebay elevation of 1475 ft.).

¹ Actual diversions into the City of Nelson plant are set by other agreements between the City of Nelson and B.C. Hydro. In actual operations, 1693 cfs is made available to City of Nelson.

Table 8 provides the resulting Head Correction Factors to be applied to applicable Generation Versus Flow Characteristics resulting from these operational changes.

4. ENTITLEMENT CALCULATION METHODOLOGY

4.1 Purpose

This Section 4 documents the calculation method and procedures that are used by the Entitlement Calculation Program to assist in calculating Entitlement Energy and Entitlement Capacity, which are set out in Table 9. These procedures make use of the Entitlement Calculation Program, which is an Excel workbook consisting of several components, as follows:

- (a) A Visual Basic model ("the VB Module") that calculates:
 - (1) in respect of Corra Linn, Upper Bonnington, Lower Bonnington, South Slocan and the Brilliant Facilities the applicable Available Flow at each Plant (as described in Sections 2.5 and 2.6 of this Schedule A); and
 - (2) for each month of each year of the Stream Flow Record Period, the energy generation and generation capacity for each of the Plants based on the Plant Characteristics and Available Flow;
- (b) Several worksheets to store and summarize alternative input data needed to run the VB Module for the various studies (as described in Section 2.2 of this Schedule A);
- (c) Several worksheets to store and summarize the output data from the VB Module, including the computation of average monthly energy generation and monthly generation capacity for each Plant over the Stream Flow Record Period; and
- (d) A worksheet to select the appropriate input data from the available options and to initiate the execution of the VB Module.

4.2 Entitlement Capacity

The VB Module determines the generation capacity for each Plant and each month as follows:

- (a) the generation capacity for each Plant in each of the 600 months of the Stream Flow Record Period is determined as follows:
 - (1) if the Available Flow at the Plant in that month is greater than the Flow at Maximum Generation Capacity, the generation capacity for that month is determined based on the Available Flow, and for Corra Linn the average Corra Linn forebay elevation, utilizing the Generation Versus Flow Characteristics; and
 - (2) if the Available Flow at the Plant in that month is less than or equal to the Flow at Maximum Generation Capacity, the generation capacity for that month is determined as the corresponding Maximum Generation Capacity for that Plant;

(b) despite Section 4.2(a) of this Schedule A, the generation capacity for the Brilliant Facilities is determined as follows:

- (1) if the Available Flow at the Brilliant Facilities in that month is greater than the Flow at Maximum Generation Capacity, the generation capacity for that month is determined based on generation capacity at the Available Flow utilizing the Generation Versus Flow Characteristics;
- (2) if the Available Flow at the Brilliant Facilities in that month is less than or equal to the Brilliant Target Minimum, the generation capacity for that month is determined based on the generation capacity at the Available Flow utilizing the Generation Versus Flow Characteristics;
- (3) if the Available Flow at the Brilliant Facilities in that month is greater than the Brilliant Target Minimum but less than the sum of the Brilliant Target Minimum plus the Brilliant Flow Increment (defined below), the generation capacity for that month is determined as follows:

$$C = Cmin + (CM - Cmin) * (AF - Qmin) / Qinc$$

Where:

Cmin = Capacity at the Brilliant Target Minimum.

CM = Capacity available when Available Flow equals Flow at Maximum Generation Capacity

AF = Available Flow

Qmin = Brilliant Target Minimum

Qinc = Brilliant Flow Increment, which is defined as the Brilliant Facility's Flow at Maximum Generation Capacity less the Brilliant Target Minimum divided by 6, which reflects peaking requirements of 4 hours during each day; and

- (4) if the Available Flow at the Brilliant Facilities in that month is less than or equal to the Flow at Maximum Generation Capacity but greater than or equal to the Brilliant Target Minimum plus the Brilliant Flow Increment (as defined above), the generation capacity for that month is determined as the corresponding Maximum Generation Capacity for the Brilliant Facilities;

(c) despite Section 4.2(a) of this Schedule A, during the months of June and July, the generation capacity for the Waneta Facilities includes consideration of three distinct Waneta Minimum constraints that are applicable during those periods. The three minimum flow scenarios are:

- (1) scenario A – uses 20,000 cfs as Waneta Minimum for June and July and is representative of flow constraints applicable when daily inflows are above 20,000 cfs during June 1 to July 15;

- (2) scenario B - uses 8,500 cfs as Waneta Minimum for June and July and is representative of flow constraints applicable when daily inflows are below 20,000 cfs during June 1 to July 31;
 - (3) scenario C - uses 0 cfs as Waneta Minimum for June and July and is representative of flow constraints applicable when daily inflows are above 20,000 cfs during the period from July 16 to July 31;
- (d) for each scenario referred to in Section 4.2(c) of this Schedule A, generation capacity for a month is determined as follows:
- (1) if the Available Flow at the Waneta Facilities in that month is greater than the Flow at Maximum Generation Capacity, the generation capacity for that month is determined based on generation capacity at the Available Flow utilizing the Generation Versus Flow Characteristics;
 - (2) if the Available Flow at the Waneta Facilities in that month is less than or equal to the Waneta Minimum, the generation capacity for that month is determined based on the generation capacity at the Available Flow utilizing the Generation Versus Flow Characteristics;
 - (3) if the Available Flow at the Waneta Facilities in that month is greater than the Waneta Minimum, but less than the sum of the Waneta Minimum plus the Waneta Flow Increment (defined below), the generation capacity for that month is determined in accordance with the following formula:

$$C = C_{min} + (CM - C_{min}) * (AF - Q_{min}) / Q_{inc}$$

Where:

C_{min} = Capacity at the Waneta Minimum

CM = Capacity available when Available Flow at the Waneta Facilities equals the Waneta Facility's Flow at Maximum Generation Capacity

AF = Available Flow at the Waneta Facilities

Q_{min} = Waneta Minimum, as described in Section 4.2(c) of this Schedule A

Q_{inc} = Waneta Flow Increment, which is defined as the Waneta Facility's Flow at Maximum Generation Capacity less the applicable Waneta Minimum divided by 6, which reflects peaking requirements of 4 hours during each day); and

- (4) if the Available Flow at the Waneta Facilities in that month is less than or equal to the Flow at Maximum Generation Capacity but greater than or equal to the Waneta Minimum plus the Waneta Flow Increment (as defined above), the generation capacity for that month is determined as the corresponding Maximum Generation Capacity for the Waneta Facilities;

- (e) the results of the capacity computation for the three scenarios in Section 4.2(c) of this Schedule A are then used to determine a weighted average capacity value for the Waneta Facilities applicable to that month. The weighting factors represent the estimated likelihood of each Waneta Minimum flow constraint being applicable in that period. Based on current constraints and Available Flows, the weighting factors are:

<u>Scenario</u>	<u>June</u>	<u>July</u>
A	92.0%	40.0%
B	8.0%	30.0%
C	0.0%	30.0%
	100%	100%

- (f) Sections 4.2(c), (d) and (e) of this Schedule A reflect the Waneta Minimum as at the date of this Agreement. In connection with any re-determination resulting from a change in the Waneta Minimum, the Operating Committee will amend these Sections in order to appropriately reflect such change, however in any such amendment the monthly Entitlement Capacity will be calculated based on the generation capacity for the Waneta Facilities in each of the 600 months of the Stream Flow Record Period being the lesser of:
- (1) the generation capacity determined in accordance with Sections 4.2(a)(1) and (2) of this Schedule A; and
 - (2) the generation capacity at the flow determined by shaping the Available Flow into 4 hour daily blocks after taking into consideration any Waneta Minimum requirements during the remaining hours of each day;
- (g) each of the 600 monthly generation capacity amounts determined in Sections 4.2(a), (b), (d) and (f) of this Schedule A is multiplied by the applicable Head Correction Factor and each of the resulting amounts is called the “Monthly Generation Capacity”. The Monthly Generation Capacity amounts are then averaged over all 50 years of the Stream Flow Record Period to determine the “Monthly Average Generation Capacity”.

The output of the Entitlement Calculation Program (Monthly Average Generation Capacity) is then input into the CPA Tables Workbook and the Entitlement Capacity attributable to each Plant is computed in the Table 9 worksheet as follows:

- (h) for each month, the Entitlement Capacity is determined as follows:
- (1) for the Brilliant Facilities, the Entitlement is separated into its component parts as described in Section 2.2 of this Schedule A (See Table 9 for details of this computation); and

- (2) for the Waneta Facilities the Entitlement is separated into its component parts as described in Section 2.2 of this Schedule A (See Table 9 for details of this computation);
- (3) only in the case of the FortisBC Plants, the Entitlement Capacity is adjusted by the Adjustment Factor for capacity, and in accordance with the FortisBC Entitlement Adjustment Agreement between B.C. Hydro and FortisBC made effective the 1st day of June, 2004 (the "FortisBC Entitlement Adjustment Agreement");
- (i) despite Section 4.2(h) of this Schedule A, if:
 - (1) Teck and B.C. Hydro have given a notice pursuant to Section 6.7 of this Schedule A, then for so long as such notice is in effect, the Entitlement Capacity attributable to the Waneta Plant is the amount specified in such notice; or
 - (2) no such notice has been given or is in effect, then the Entitlement Capacity attributable to the Waneta Plant is determined by multiplying the Entitlement Capacity for the Waneta Plant otherwise determined in accordance with this Section 4.2 by the Teck Participation Percentage.

The Entitlement Capacity as of the date of this Agreement is set out in Table 9.

4.3 Entitlement Energy

The VB Module of the Entitlement Calculation Program determines the energy generation of each Plant for each month as follows:

- (a) for each of the 600 months in the Stream Flow Record Period, the Entitlement Calculation Program determines the "Monthly Energy Generation" for each Plant as the lesser of:
 - (1) the energy generation for that Plant and that month based on the Available Flow for that Plant and month and the Plant Characteristics at that Plant; and
 - (2) the amount of energy that would have been generated in the month if the Plant were generating at 100% of the Monthly Generation Capacity less a required spinning reserve allowance (which as of the date of this Agreement is 2.5%);
- (b) for each Plant and each month, the average energy is determined by averaging the Monthly Energy Generation amounts for that Plant and for that month over all 50 years of the Stream Flow Record Period. The Monthly Energy Generation amounts are computed in average MW and multiplied by the hours in the month, and divided by 1000, to convert to GW.h.

The output of the Entitlement Calculation Program (Average Monthly Energy Generation) is then input into the CPA Tables Workbook and the Entitlement Energy for each Plant is computed in the Table 9 worksheet as follows:

- (c) for each FortisBC Plant, the Entitlement Energy is computed by multiplying the average energy determined in accordance with Section 4.3(b) of this Schedule A by the Adjustment Factor for Entitlement Energy applicable to the FortisBC Plants (see Table 9);
- (d) for the Brilliant Facilities and the Waneta Facilities, the Entitlement Energy applicable to those facilities requires multiple runs of the Entitlement Calculation Program, as more specifically described in Section 2.2 of this Schedule A. Detailed information on these runs and the related calculation of Entitlements is provided in Table 9;
- (e) for February, the monthly average Entitlement Energy is multiplied by 28.25/28 every year to account for leap years, and no further adjustment is made in a leap year (see Table 9); and
- (f) if (i) Teck and B.C. Hydro have given a notice pursuant to Section 6.7 of this Schedule A, then for so long as such notice is in effect, the Entitlement Energy attributable to the Waneta Plant is the amount specified in such notice; or (ii) no such notice has been given or is in effect, then the Entitlement Energy attributable to the Waneta Plant is determined by multiplying the Entitlement Energy attributable to the Waneta Plant otherwise determined in accordance with this Section 4.3 by the Teck Participation Percentage.

The amounts of Entitlement Energy as of the date of this Agreement are as set out in Table 9.

4.4 Entitlement Post WAX Start-up

Table 9 sets out the Waneta Facilities' Entitlement upon WAX Start-up, subject to re-determination in accordance with this Agreement. WELP will timely undertake independent Turbine Model Testing and provide the results thereof to B.C. Hydro. In addition to any re-determination pursuant to Section 6 of this Schedule A, Aggregate Entitlement attributable to the Waneta Facilities may be re-determined in accordance with this Agreement:

- (a) after Turbine Model Testing to incorporate any updated Waneta Facilities Plant Characteristics;
- (b) at WAX Start-up, using Available Flows then in use under this Agreement and then-current Plant Characteristics and Legal Obligations applicable to the Waneta Facilities; and/or
- (c) after WAX Start-up, once both Units are in service, based on as-built Plant Characteristics following Performance Testing.

Any such re-determination will reflect any variation from the following assumptions which were used in determining the initial Waneta Facilities Entitlement set out in Table 9:

- (d) the Waneta Facilities are not subject to Legal Obligations that impose speed no-load operation;
- (e) the only restrictions recognized for minimum flows are in June and July, as described in Section 4.2(c) of this Schedule A;

- (f) the Waneta Expansion tailwater level curve is 1.5 feet lower than the Waneta Plant tailwater level curve; and
- (g) the estimated Waneta Expansion turbine and generator characteristics based on the preliminary design provided to B.C. Hydro on March 4, 2010.

The Waneta Facilities' Entitlement in Table 9 includes no adjustment for Waneta Expansion station service or transmission losses from the Waneta Expansion to the Selkirk Substation, on the basis that Waneta Expansion will be included in the computation of usage of Aggregate Entitlement in the same manner as the Waneta Plant, the FortisBC Plants and the Brilliant Facilities. Waneta Expansion generation will be metered at the generator output terminals and these metered amounts will be an input to the computation of gross load within the Entitlement Parties' System (i.e. system load plus losses).

5. AGGREGATE ENTITLEMENT ADJUSTMENTS

5.1 Purpose

This Section 5 documents the Aggregate Entitlement adjustments applicable to Unit Outages and Unit Derates. Typical adjustments for Entitlement Energy and Entitlement Capacity are set out in Tables 10 and 10a, however for different amounts of capacity out of service or, in the case of the Waneta Facilities, for different allocation scenarios not covered by Tables 10 and 10a, the Aggregate Entitlement adjustments may be computed in accordance with Sections 5.2 and 5.3 of this Schedule A. For the purpose of calculating Aggregate Entitlement adjustments, the capacity stranded by Water Licence restrictions at each Plant will be determined by the Operating Committee and will reflect the difference between the estimated Maximum Generation Capacity assuming no Water Licence limitations at the Plant and the actual Maximum Generation Capacity incorporating Water Licence limitations at the Plant, as provided in Table 7.

5.2 Derivation of Entitlement Capacity Adjustments

Entitlement Capacity adjustments are derived directly from the Entitlement Capacity attributed to each Plant and the amount of capacity out of service at the Plant. Subject to Section 6.8 of this Schedule A, the Entitlement Capacity adjustments are computed as follows:

- (a) subject to Section 5.2(b) of this Schedule A, for all Plants other than the Brilliant Facilities, the (linear) monthly capacity adjustment rate for the Plant is computed as the monthly Entitlement Capacity attributable to that Plant divided by the Maximum Generation Capacity of that Plant, as provided in Table 7. The Entitlement Capacity adjustment is then determined by multiplying the amount of capacity out of service, less any capacity stranded by Water Licence restrictions at the Plant, as provided on Table 10, by the (linear) monthly capacity adjustment rate for the Plant; and
- (b) for certainty, the values for the calculations contemplated in (a) above for the Waneta Facilities will be values that include the whole of the Waneta Plant before any change made to the Entitlement Capacity attributable to the Waneta Plant pursuant to Section 6.7 of this Schedule A, and will be allocated between Teck and WELP pro rata based on the capacity out of service at each of the Waneta Plant and the Waneta Expansion, as

applicable. From and after January 1, 2036, any Entitlement Capacity adjustment allocated to Teck will be further adjusted by multiplying it by the Teck Participation Percentage of the Waneta Plant.

Because the Entitlement Capacity recognised for the Brilliant Expansion is reduced by the minimum flow requirement associated with that Plant, the Brilliant Facilities have three (linear) monthly capacity adjustment rates; as described below:

- (c) for the Brilliant Expansion, the (linear) monthly capacity adjustment rate is computed by dividing the monthly increment of Entitlement Capacity attributable to the Brilliant Expansion by the difference between the Maximum Generation Capacity of the Brilliant Facilities and the Maximum Generation Capacity of the Brilliant Plant;
- (d) when the Brilliant Expansion is out of service, the (linear) monthly capacity adjustment rate for the Brilliant Plant is computed as the monthly Entitlement Capacity attributable to the Brilliant Plant divided by the Maximum Generation Capacity of the Brilliant Plant, as provided in Table 7;
- (e) when the Brilliant Expansion is in service, to provide for an anomaly associated with the use of different stream flow records, the monthly capacity adjustment rate applicable to the Brilliant Plant will be limited to the lesser of the capacity adjustment rates computed in (b) or (c) above;
- (f) the Brilliant Plant Entitlement Capacity adjustment is then computed by multiplying the amount of Brilliant Plant capacity out of service by the monthly adjustment rate computed in either (c) or (d), as applicable; and
- (g) the rate defined in (b) will apply to any outage of the Brilliant Expansion, regardless of the status of the Brilliant Plant Units. Because the Brilliant Expansion only has one Unit, any full outage of that Unit will result in a full loss of the Entitlement attributable to the Brilliant Expansion.

Table 10 shows the computation of the (linear) monthly adjustment rates for each Plant and the Entitlement Capacity adjustments for several combinations of Unit outages.

5.3 Derivation of Entitlement Energy Adjustments

- (a) Subject to Section 6.8 of this Schedule A, the Entitlement Energy outage adjustments for Unit Outages and Unit Derates are derived using the Entitlement Calculation Program by inputting the total amount of capacity out of service, less any capacity stranded by Water Licence restrictions at the Plant, as provided on Table 10. The program uses this information to modify the Generation Versus Flow Characteristics by limiting the curve to the in service capacity at flows less than Flow at Maximum Generation Capacity and by de-rating the curve in proportion to the amount of capacity out of service (relative to the Maximum Generation Capacity at the Plant) for flows in excess of Flow at Maximum Generation Capacity. The difference between the computed Aggregate Entitlement Energy with no outage adjustment and the computed Aggregate Entitlement Energy with

the outage adjustment is the Entitlement Energy outage adjustment. If the Entitlement Energy outage adjustments pursuant to this subsection (a) are different than those pursuant to subsection (g) below, those pursuant to subsection (g) below will govern.

- (b) For certainty, the values for the calculations contemplated in subsection (a) above for the Waneta Plant will be values for the whole of the Waneta Plant prior to and including December 31, 2035. From and after January 1, 2036, provided WAX Start-up has not then occurred, any Entitlement Energy outage adjustments for the Waneta Plant calculated pursuant to (a) above will be multiplied by the Teck Participation Percentage. These calculations will also apply after WAX Start-up, whether before or after January 1, 2036, during any WAX Start-up Prolonged Outage Period. If WAX Start-up has occurred (other than during any WAX Start-up Prolonged Outage Period), the outage adjustments will be in accordance with (g) below.
- (c) Because the Brilliant Expansion is a one Unit facility, for that Plant the monthly Entitlement Energy adjustment is the monthly Energy Entitlement applicable to the Brilliant Expansion converted directly to MW.h/h amounts.
- (d) The outage adjustments for a Unit Outage at the Brilliant Expansion are as provided in item 5C of Table 10, regardless of Unit Outages at the Brilliant Plant, if any.
- (e) Because the existence of the Brilliant Expansion affects the actual impact of outages at the Brilliant Plant, different outage adjustments will apply to Unit Outages at the Brilliant Plant depending on whether there is also a Unit Outage at the Brilliant Expansion.
 - (1) if the Brilliant Expansion is available, the outage adjustments for Unit Outages at the Brilliant Plant as provided in item 5A of Table 10 will be used.
 - (2) if there is also a Unit Outage at the Brilliant Expansion, the outage adjustments for Unit Outages at the Brilliant Plant as provided in item 5B of Table 10 will be used.
- (f) Other outage adjustments relating to Brilliant Plant are provided in Table 10 for information only, as they are only used for internal arrangements between FortisBC and BEPC.
- (g) Subject to Section 6.8 of this Schedule A, following WAX Start-up, the Entitlement Energy outage adjustment will be determined for the Waneta Facilities and the outage adjustment will then be allocated to the Waneta Plant and the Waneta Expansion under the Waneta Release Coordination Agreement, prior to applying the Teck Participation Percentage to the amount allocated to the Waneta Plant, as contemplated by Section 5.3(i) below. Such Entitlement Energy outage adjustment is to be computed in a manner that reflects the modelled impact of each outage, the agreed allocation of water rights and the agreed Adjustment Factors applicable to each increment of water usage, as follows:

- (1) All studies will incorporate the Generation Versus Flow Characteristics table for the expected coordination of the Waneta Facilities with turbine discharges limited only by Unit discharge capabilities and water licence limitations (i.e. the data used for Study W4);
- (2) To capture the impact of multiple Adjustment Factors being applied to the various increments of water usage, multiple studies are required to compute outage adjustments. In each study the Adjustment Factor input to the Entitlement Calculation Program is set to 1.0000 and the monthly energy generation is then utilized with the applicable outage adjustments as set out in the following steps. The required studies are as follows:
 - (A) A study with all capacity available (Study WA);
 - (B) A study with an amount of capacity on maintenance such that the remaining unit hydraulic capacity equals HCAP1 which is the sum of: (i) 25,000 cfs, (ii) 21,330 cfs, and (iii) the lesser of 7910 cfs or the actual capability of the units at Waneta Plant to discharge water in excess of 25,000 cfs. (Study WB);
 - (C) A study with an amount of capacity on maintenance such that the remaining unit hydraulic capacity equals HCAP2 which is the sum of: (i) 25,000 cfs, and (ii) 21,330 cfs, (Study WC); and
 - (D) A study with an amount of capacity on maintenance such that the remaining unit hydraulic capacity equals HCAP3 which is equal to 25,000 cfs, (Study WD); and
 - (E) A study with the specific amount of capacity on outage for the outage state under consideration specified as the "MW on Maintenance" parameter for the applicable Plant on the Entitlement Calculation Program, (Study WE).

Note that the first four studies can be done in advance and the results saved for later computations. Therefore only one study (the last one in the list above) is required to compute the outage adjustment for any particular outage state.

- (3) The Energy Entitlement adjustment for Unit Outages is computed from the monthly generation $E(m)$ averaged over the Stream Flow Record Period from the studies as follows:
 - (A) If the hydraulic capacity associated with the outage state exceeds HCAP1, then the outage adjustment for the month is determined as $E(m)$ from Study WE minus $E(m)$ from Study WA, multiplied by the Adjustment Factor applicable to WAX Residual Water;

- (B) If the hydraulic capacity associated with the outage state exceeds HCAP2, but is less than HCAP1, then the outage adjustment for the month is determined as the sum of:
 - (i) E(m) from Study WB minus E(m) from Study WA, multiplied by the Adjustment Factor applicable to WAX Residual Water; plus
 - (ii) E(m) from Study WE minus E(m) from Study WB, multiplied by the Adjustment Factor applicable to WAN Residual Water;
- (C) If the hydraulic capacity associated with the outage state exceeds HCAP3, but is less than HCAP2, then the outage adjustment for the month is determined as the sum of:
 - (i) E(m) from Study WB minus E(m) from Study WA, multiplied by the Adjustment Factor applicable to WAX Residual Water; plus
 - (ii) E(m) from Study WC minus E(m) from Study WB, multiplied by the Adjustment Factor applicable to Waneta Residual Water; plus
 - (iii) E(m) from Study WE minus E(m) from Study WC, multiplied by the Adjustment Factor applicable to the first 21,330 cfs of water diverted and used in the Waneta Expansion;
- (D) If the hydraulic capacity associated with the outage state is less than HCAP3, then the outage adjustment for the month is determined as the sum of:
 - (i) E(m) from Study WB minus E(m) from Study WA, multiplied by the Adjustment Factor applicable to WAX Residual Water; plus
 - (ii) E(m) from Study WC minus E(m) from Study WB, multiplied by the Adjustment Factor applicable to Waneta Residual Water; plus
 - (iii) E(m) from Study WD minus E(m) from Study WC, multiplied by the Adjustment Factor applicable to the first 21,330 cfs of water diverted and used in the Waneta Expansion; plus
 - (iv) E(m) from Study WE minus E(m) from Study WD, multiplied by the Adjustment Factor applicable to the first 25,000 cfs of water diverted and used in the Waneta Plant;
- (h) The outage adjustments for certain combinations of Unit Outages at the Waneta Facilities are as provided in Table 10, and, among other things, were determined based on the assumptions set out in Sections 4.4 (d) – (h) of this Schedule A.

- (i) For certainty, the more detailed calculation methodology set out in subsection (g)(3)(A) - (D) above in respect of the Waneta Facilities after WAX Start-Up computes the Entitlement Energy adjustment for Unit Outages at the Waneta Facilities including 100% of the Waneta Plant. The Entitlement Energy outage adjustments produced by this methodology are applicable until January 1, 2036 and assuming no notice has been given under Section 6.8 of this Schedule A. Subject to Section 6.8 of this Schedule A, from and after January 1, 2036, the Entitlement Energy outage adjustments for the Waneta Facilities must be further adjusted and allocated as follows:
- (1) compute the Waneta Facilities outage adjustment, including 100% of the Waneta Plant, as per subsection (g)(3)(A) - (D) above;
 - (2) allocate the Waneta Facilities outage adjustment between the Waneta Plant and the Waneta Expansion as per the Waneta Release Coordination Agreement. Under that Agreement, this allocation will depend on the Units concurrently on outage at each Plant, and the nature of the outages (planned vs forced);
 - (3) reduce the outage adjustment allocated to the Waneta Plant by multiplying it by the Teck Participation Percentage; and
 - (4) recompute the Waneta Facilities outage adjustment as the sum of the outage adjustment allocated to the Waneta Expansion, as computed in (2) above, plus the revised outage adjustment for the Waneta Plant as computed in (3) above.

5.4 Planned Outages

In the case of Unit Outages and Unit Derates at the FortisBC Plants that are “Planned Outages” or “Planned Derates” as defined in the FortisBC Entitlement Adjustment Agreement, outage adjustments will be determined in accordance with that Agreement and set out in Table 10a.

5.5 Application of Adjustments

Subject to Section 6.8 of this Schedule A, if the amount of capacity out of service is equal to the “MW on Outage” column of Table 10, the Entitlement Energy adjustments for the Plant indicated on Table 10 will be as shown on Table 10. For different amounts of capacity out of service, the “MW on Maintenance” feature of the Entitlement Calculation Program (an input parameter on the “Progress” worksheet) may be used to determine applicable levels of Entitlement Energy adjustments for this outage state, as described more fully in this Schedule A. For the Waneta Facilities, whether the adjustments are as shown on Table 10 or determined using the methodology described in Section 5.3 of this Schedule A, then unless those adjustments for the applicable outage scenario have been allocated on Table 10, they must be allocated between the Waneta Plant and the Waneta Expansion as contemplated by Section 5.3(i) of this Schedule A.

5.6 Start-up of Second WAX Unit

If WAX Start-up occurs with only one Unit in service, the second Unit will not be considered in service (and will be deemed to be on outage and the applicable outage adjustments will apply) until it also satisfies the tests set out in the definition of WAX Start-up as if it were the first Unit to come into service.

6. RE-DETERMINATION OF AGGREGATE ENTITLEMENT

6.1 Re-Determination

Subject to Section 2.3 of this Agreement, the Aggregate Entitlement may be re-determined from time to time if B.C. Hydro or a Plant owner receives a request for re-determination from the other (a copy of which the requesting party will send to the other Entitlement Parties) based on one of the following:

- (a) the requesting party believes that since the later of February 15, 2010 and the last re-determination under this subsection (a) relating to that Plant there has been or will within 12 months be a change or changes in the Plant Characteristics of the Plant which would result in a change to the Aggregate Entitlement if re-determined;
- (b) the requesting party believes that since the later of the date of February 15, 2010 and the last re-determination under this subsection (b) relating to that Plant there has been or will within 12 months be a change or changes in the Available Flow at the Plant which would result in a change to the Aggregate Entitlement if re-determined, except for Available Flow changes resulting directly from B.C. Hydro's operating instructions hereunder or for which B.C. Hydro has received adequate compensation as determined by the Operating Committee;
- (c) the WECC or any other authority having jurisdiction has changed the requirements relating to spinning reserve allowances and the requesting party believes that such change would result in a change to the Aggregate Entitlement if re-determined; or
- (d) the requesting party believes that the Adjustment Factor applicable to a Plant has changed or will within 12 months change as a result of (1) the Teck Cominco CPA Scheduling Agreement terminating, (2) a period being or ceasing to be a Flexibility Option Period as defined in the BEPC CPA Scheduling Option Agreement, or (3) a re-determination of the SVM Benefit Adjustment Factor Increment pursuant to Section 6.10 of this Schedule A, in any case which would result in a change to the Aggregate Entitlement if re-determined.

6.2 Information

Each of the parties will promptly disclose to each other party any information that could reasonably lead to a re-determination. If a party (the "**Knowledgeable Party**") does not disclose such information promptly and a re-determination occurs between the time the Knowledgeable Party became aware of the information and the time the Knowledgeable Party disclosed the information, any party may, without prejudice to any other rights under this Agreement, request a re-determination based on the disclosed information despite the fact that an intervening re-determination has occurred. Such re-determination will be retroactive to the time the Knowledgeable Party became aware of the information.

6.3 Re-Determination Procedure

A re-determination of the Aggregate Entitlement will be conducted by the Operating Committee as follows:

- (a) the Operating Committee will, without unreasonable delay, update this Schedule A and Tables to reflect the changes to the Available Flow and Plant Characteristics of the Plant;
- (b) the Entitlement Calculation Program will be used to determine the Entitlement Energy and Entitlement Capacity applicable to the Plant based on the updated Available Flow and Plant Characteristics;
- (c) if the Operating Committee determines that the Entitlement Energy or Entitlement Capacity applicable to the Plant under the updated Available Flow and Plant Characteristics has changed or will change from that set out in Table 9, after reasonably taking into account any compensation received by any of the parties related to the change:
 - (1) Table 9 will be revised to reflect the new Entitlement Energy and Entitlement Capacity;
 - (2) the Aggregate Entitlement adjustments in Tables 10 and/or 10a, as the case may be, will be adjusted as required to reflect the changes; and
 - (3) the Operating Committee will determine the effective date of the re-determination and any necessary transitional provisions (including procedures for confirming changes that have not then yet been implemented); and
- (d) the Operating Committee will deliver the updated Tables to the parties and, upon delivery, this Agreement will be deemed to have been amended accordingly as of the effective date of the re-determination.

6.4 Modification of Tables

In a re-determination of the Aggregate Entitlement, the Operating Committee will have the authority and responsibility to modify any Table to this Schedule A to reflect the new Entitlement with respect to each Plant, the applicable outage adjustments (determined in accordance with this Agreement) used to develop such Entitlement, or to document the revised data used to develop such Entitlement, subject to the following:

- (a) the Stream Flow Record Period may not be modified except by agreement amongst all parties;
- (b) except as required to accommodate a modification of the Stream Flow Record Period under (a) above, Tables 1 and 2 will not be modified;
- (c) inflow data for the Waneta Plant or, after WAX Start-up, the Waneta Facilities and for Kootenay Lake for Regulated Stream Flow conditions:

- (1) may be modified to reflect the expected operation of upstream projects, and;
- (2) may not be modified for any other reason except to the extent that the inflow data has been modified in a study of inflow data by a third party and that study does not provide a means of removing those modifications, in which event any party that considers itself adversely affected by the modification of the inflow data by the third party may seek, at its expense, to have the third party remove the modifications from the study of the inflow data for the Waneta Plant or, after WAX Start-up, the Waneta Facilities, or for Kootenay Lake;
- (d) subject to Section 2.3(e) and (f) of this Agreement, the Kootenay Lake target elevations for Unregulated Stream Flow conditions in Table 6 may be modified but only to reflect changes resulting from modifications to any of the Kootenay Lake storage Water Licences, changes in Kootenay Lake operation or modifications to the International Joint Commission rule curve for Kootenay Lake; and
- (e) subject to Section 2.3(e) and (f) of this Agreement, the Kootenay Lake target elevations for Regulated Stream Flow, Table 6 Kootenay Lake Curve 2 and 3, conditions may be modified to reflect the expected operation of Kootenay Lake.

6.5 Other Modifications

In a re-determination of the Aggregate Entitlement:

- (a) Adjustment Factors may not be modified except by agreement between the parties affected by modification;
- (b) the methodology used to determine Entitlement Capacity and Entitlement Energy, as described in Section 4 of this Schedule A, may not be modified;
- (c) spinning reserve allowances may be modified only in response to changes determined by the authority having responsibility for establishing such provisions, or by agreement between B.C. Hydro and the Entitlement Party affected by the modification; and
- (d) the Entitlement Calculation Program may not be modified to amend existing algorithms or to incorporate new algorithms, except by agreement between the parties affected by the modification, however computational errors will be corrected if required. Nothing in this Section 6.5(d) prevents changes to Tables that may form part of the Entitlement Calculation Program, as provided for in this Agreement.

6.6 Re-Determination Dispute Resolution

A dispute in connection with a re-determination of the Aggregate Entitlement will be resolved in accordance with Section 12 of this Agreement. A lack of agreement respecting a modification that, under this Section 6 of this Schedule A, may not be made except by agreement between parties is not a dispute to be resolved in accordance with Section 12 of this Agreement. If a dispute is resolved by arbitration, the arbitrator is empowered to determine the effective date of the re-determination and any transitional provisions having regard to all of the circumstances, including any unreasonable delay by a party.

6.7 Bilateral Amendments for Waneta Plant Entitlement Energy and Entitlement Capacity

Subject to Section 6.10 of this Schedule A, Teck and B.C. Hydro may agree at any time, and from time to time, to change the Entitlement Energy and Entitlement Capacity attributable to the Waneta Plant for either a specific period of time or until further notice, on written notice thereof to the other Entitlement Parties, and so often as such a notice is given, Table 9 will be deemed amended to reflect such change effective for the specific period or as of the date set out in the notice.

6.8 Bilateral Amendments for Waneta Plant Outage Factors

Subject to Section 6.10 of this Schedule A, Teck and B.C. Hydro may agree at any time, and from time to time, to:

- (a) change the capacity and/or energy outage adjustments for the Waneta Plant; or
- (b) change the procedure for determining the amount of MW on Outage for the Waneta Plant, or for the Waneta Plant as part of the Waneta Facilities, to be used in determining the outage adjustments to Entitlement Capacity or Entitlement Energy,

either for a specific period of time or until further notice, on written notice thereof to the other Entitlement Parties, and so often as such a notice is given, the outage adjustments for the Waneta Plant, Table 10 and/or the procedure for determining MW on Outage to be used, as applicable, will be deemed amended to reflect such change effective for the specific period or as of the date set out in the notice.

6.9 Bilateral Amendments of Waneta Expansion Entitlement Energy, Entitlement Capacity and other Changes

Subject to Section 6.10 of this Schedule A, WELP and B.C. Hydro may agree at any time, and from time to time, to change the Entitlement Energy and/or the Entitlement Capacity attributable to the Waneta Expansion by giving written notice thereof to the other Entitlement Parties, and Table 9 will be deemed amended to reflect any such change, effective as of the date set out in the notice.

Further, WELP and B.C. Hydro may agree at any time, and from time to time, to change the Minimum Take requirements, scheduling constraints, or other constraints on Aggregate Entitlement usage, insofar as they are attributable to Waneta Expansion generation, by giving written notice thereof to the other Entitlement Parties, such change to be effective as of the date set out in the notice. The Entitlement Parties will be responsible for allocating such changed requirements or constraints on Aggregate Entitlement usage among the Entitlement Parties under the CPA Subagreement.

6.10 Limits on Bilateral Amendments

Teck and B.C. Hydro will only make changes pursuant to Section 6.7 and Section 6.8 of this Schedule A for purposes of effecting the changes to Waneta Plant Entitlement Energy and Entitlement Capacity, changes to the capacity and/or energy outage adjustments for the Waneta Plant (provided no resulting changes to the Waneta Expansion outage adjustments occur) and changes to the procedure for determining the amount of MW on Outage for the Waneta Plant contemplated by the Co-Ownership and Operating Agreement, or for the purpose of making changes to Waneta Plant Entitlement Energy and Entitlement Capacity pursuant to the Letter Agreement regarding Waneta Speed No Load Operation,

Redeterminations relating to WAX and Replacement CPA dated November 15, 2011 between BC Hydro and Teck, and not, either directly or indirectly, for any other purpose.

WELP and BC Hydro will only make changes pursuant to Section 6.9 of this Schedule A for purposes of effecting changes to Waneta Expansion Entitlement Energy and/or Entitlement Capacity, changes to Minimum Take requirements, scheduling constraints, or other constraints on Aggregate Entitlement usage, only for purposes of (i) effecting a buy-down of Waneta Expansion Entitlement Capacity sold pursuant to the WAX CAPA, by agreement between B.C. Hydro and WELP, or (ii) effecting changes that have been agreed between those parties (or determined by arbitration) pursuant to the Bilateral BCH/WELP Agreement between those parties made as of the 15th day of November, 2011, and not, either directly or indirectly, for any other purpose.

6.11 Re-determination of SVM Adjustment Factor Increment

The Seven Mile coordination benefits are calculated based on two sets of power studies as the value weighted generation difference between Seven Mile operated with WAX plus WAN downstream, and Seven Mile operated with only WAN downstream. If the Available Flow, Plant Characteristics and/or Legal Obligations applicable to the Waneta Facilities or the plant characteristics and/or assumed Legal Obligations applicable to B.C. Hydro's Seven Mile plant (collectively referred to as the **"Initial Determination Conditions"**) change prior to the expiry or earlier termination of the initial term of the WAX EPA, the new SVM Benefit Adjustment Factor Increment included in the Adjustment Factor applicable to the Waneta Expansion will be adjusted as follows:

- (a) the Seven Mile coordination benefits prior to the change (**"Bp"**) will be estimated based on: (1) the then most current detailed modelling of Pend d'Oreille River operations using the Initial Determination Conditions applicable prior to the change and (2) the time of delivery factors applied by B.C. Hydro in its then most recent call for new power;
- (b) the Seven Mile coordination benefits after the change (**"Ba"**) will be estimated based on the then most current detailed modelling of Pend d'Oreille River operations using the revised conditions applicable after the change incorporating the same time of delivery factors as in subsection (a) above; and
- (c) the new SVM Benefit Adjustment Factor Increment will be re-determined as the old SVM Benefit Adjustment Factor Increment multiplied by the ratio of Ba to Bp.

The new SVM Benefit Adjustment Factor Increment will be re-determined as the old SVM Benefit Adjustment Factor Increment multiplied by the ratio of Ba to Bp.

The current SVM Benefit Adjustment Factor Increment is based on the 2004 Waneta Plant flows. The plant characteristics and Legal Obligations applicable to Seven Mile pre- and post- WAX Start-up and used for determining the Seven Mile coordination benefits are documented in Table 16. Following a change in the SVM Benefit Adjustment Factor Increment based on this Section 6.11, Table 16 will be updated to reflect the revised Initial Determination Conditions, if applicable, for Seven Mile, on which the new SVM Benefit Adjustment Factor Increment is based.

Table 1

Kootenay Lake Inflows: Unregulated													
Source: 1990 Modified Flows from BPA													
Inflow (cfs)													
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Ann.
	31	30	31	30	31	31	28	31	30	31	30	31	365
Minimum	14,753	10,212	5,945	4,556	5,163	5,098	4,714	5,341	8,795	38,869	46,253	20,739	16,005
Average	22,002	14,540	12,523	11,002	9,471	7,978	8,372	10,115	25,483	74,107	90,110	48,717	27,947
Maximum	43,351	33,029	29,073	19,266	21,500	19,680	19,369	24,052	54,121	111,212	157,081	98,751	37,415
1938-39	15,409	12,662	9,904	7,659	6,353	7,303	4,879	8,167	28,261	71,273	54,919	40,809	22,404
1939-40	17,290	11,036	14,802	11,361	10,822	6,645	6,968	10,741	24,412	66,989	55,557	26,171	21,982
1940-41	15,123	13,822	12,385	8,133	7,246	6,097	5,550	9,921	24,575	48,109	46,253	24,898	18,564
1941-42	15,163	20,611	20,767	15,360	21,500	9,073	7,498	7,258	25,548	66,697	80,125	59,581	29,207
1942-43	23,785	13,347	10,084	8,851	7,697	5,673	6,500	7,864	54,121	56,388	80,284	66,678	28,502
1943-44	22,723	11,394	9,989	7,415	6,020	5,288	4,714	5,479	10,374	39,849	47,393	20,739	16,005
1944-45	15,222	11,633	10,010	7,638	5,163	5,718	5,652	5,818	8,795	56,109	76,241	37,736	20,538
1945-46	15,068	11,564	8,940	9,525	7,327	6,931	6,278	9,671	32,023	97,900	97,820	50,942	29,600
1946-47	21,032	15,841	10,675	8,498	9,528	7,439	9,983	13,506	34,622	97,508	82,017	43,761	29,632
1947-48	18,540	14,500	29,073	18,249	10,876	8,373	7,729	8,009	26,795	91,822	131,755	43,308	34,152
1948-49	25,787	13,791	11,051	8,503	5,986	5,098	6,238	8,324	30,395	90,201	54,510	25,373	23,882
1949-50	16,274	11,007	8,980	11,396	10,548	6,919	7,844	11,937	23,277	64,295	121,674	72,538	30,620
1950-51	25,154	13,301	18,010	17,042	17,820	13,149	19,369	11,135	31,789	103,648	84,417	72,206	35,708
1951-52	25,418	18,227	22,132	13,453	11,154	8,531	8,478	8,520	40,275	83,105	74,371	43,381	29,854
1952-53	20,080	11,721	7,998	5,600	5,633	9,602	10,444	7,925	16,594	65,613	99,607	58,630	26,679
1953-54	23,729	12,887	11,151	10,850	8,467	7,269	8,546	9,397	20,598	97,561	112,336	98,751	35,303
1954-55	35,046	21,844	13,485	14,654	10,974	7,535	6,476	5,946	13,190	47,299	121,239	71,772	30,857
1955-56	24,869	13,913	16,962	17,322	12,497	10,781	7,359	10,991	43,576	108,985	119,139	57,068	37,072
1956-57	22,464	12,983	12,785	8,647	8,450	5,545	6,490	8,924	18,731	111,212	73,100	30,229	26,777
1957-58	16,624	10,888	10,271	7,759	6,924	6,201	7,772	8,947	19,457	95,797	65,769	30,065	23,982
1958-59	16,269	12,120	11,827	10,118	8,994	10,002	6,948	8,081	28,218	74,746	123,577	65,961	31,473
1959-60	25,809	33,029	25,770	19,266	14,440	8,525	8,718	13,959	38,154	58,348	95,646	54,189	33,039
1960-61	21,203	15,043	11,369	10,886	6,793	7,774	12,037	11,691	22,098	96,279	140,214	38,057	32,801
1961-62	20,508	12,532	13,495	8,887	7,309	6,200	8,239	6,859	33,284	58,516	86,499	42,197	25,409
1962-63	22,715	12,720	12,852	13,409	12,194	8,056	12,743	10,706	21,260	64,236	88,573	50,189	27,521
1963-64	21,733	15,153	10,604	10,733	8,464	7,483	6,045	6,153	16,546	63,117	117,729	58,813	28,607
1964-65	24,949	16,254	17,355	12,565	8,918	8,209	8,747	9,342	30,662	67,510	99,650	47,173	29,331
1965-66	26,064	14,618	13,454	12,778	8,964	8,055	6,653	9,581	29,998	78,285	98,377	52,246	30,015
1966-67	20,827	12,626	9,373	8,949	9,438	8,684	9,086	8,848	14,530	67,753	149,396	65,068	32,080
1967-68	22,686	13,593	11,040	10,463	7,448	7,519	9,744	14,467	12,966	64,838	99,880	54,925	27,536
1968-69	24,409	18,902	14,766	14,156	10,642	8,200	7,045	8,997	44,820	101,816	108,177	51,006	34,504
1969-70	18,027	13,732	12,438	10,362	7,295	6,496	6,524	6,937	11,747	57,860	82,344	31,282	22,133
1970-71	15,804	10,822	8,904	6,968	6,860	8,127	13,769	9,100	26,025	100,468	108,255	58,714	31,219
1971-72	26,646	13,078	10,033	8,787	6,613	6,448	8,233	24,052	21,058	90,651	135,813	68,479	35,105
1972-73	33,331	14,032	13,245	9,924	8,487	7,594	7,467	8,280	14,970	57,084	68,367	35,700	23,296
1973-74	16,257	11,375	10,275	13,630	11,624	19,680	11,503	12,690	34,900	75,186	157,081	74,440	37,415
1974-75	30,353	13,920	8,356	9,561	7,665	6,276	7,122	7,448	13,326	60,784	99,052	55,143	26,663
1975-76	24,027	15,919	12,939	15,203	20,688	10,268	9,494	8,251	28,088	93,153	74,425	67,249	31,805
1976-77	43,351	23,507	10,248	7,215	7,182	5,737	6,326	5,341	16,586	39,663	49,563	23,031	19,875
1977-78	18,624	14,038	9,361	8,704	9,837	6,914	6,055	12,146	26,329	65,988	87,370	52,278	26,554
1978-79	21,079	20,763	12,506	9,260	6,088	5,304	7,727	9,037	14,120	59,537	57,886	30,376	21,203
1979-80	15,319	10,544	6,826	4,556	8,961	5,107	6,300	8,342	37,599	95,118	61,460	28,883	24,182
1980-81	17,312	13,300	11,286	11,458	17,702	14,534	13,391	13,345	23,777	86,767	81,357	68,728	31,210
1981-82	31,403	15,002	12,523	11,389	9,702	8,598	15,333	14,308	18,205	71,875	114,140	53,952	31,410
1982-83	26,866	19,127	14,457	10,562	10,349	11,689	11,660	17,791	27,016	71,954	78,495	55,767	29,747
1983-84	26,043	13,526	9,689	17,493	8,462	11,515	8,963	10,141	21,186	38,869	91,892	49,252	25,608
1984-85	22,650	13,372	8,575	9,044	7,119	6,029	5,395	6,096	23,676	75,558	66,785	28,511	22,817
1985-86	14,753	14,813	14,469	14,947	8,377	8,044	10,555	21,267	30,544	66,753	85,089	39,127	27,435
1986-87	20,688	12,369	12,714	14,269	9,413	7,235	6,618	15,791	31,893	81,334	52,277	28,704	24,553
1987-88	15,597	10,212	5,945	6,621	6,552	5,426	5,381	8,239	33,136	60,926	67,598	31,785	21,497

Table 2

Local Inflows between Corra Linn and Brilliant													
Source: 1990 Modified Flow Data from BPA													
Local inflow (cfs)													
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Ann.
	31	30	31	30	31	31	28	31	30	31	30	31	365
Minimum	998	718	679	571	501	477	457	473	1,067	3,815	6,452	2,484	1,997
Average	2,492	1,624	1,485	1,331	1,037	839	783	910	2,256	7,671	11,162	6,334	3,170
Maximum	5,727	4,010	3,341	2,468	1,770	1,423	1,587	1,912	3,718	12,277	17,470	11,202	4,046
1938-39	1,586	886	954	784	658	657	520	612	2,935	10,338	9,223	7,489	3,070
1939-40	1,961	933	963	1,835	1,642	742	634	729	2,720	7,482	8,658	3,465	2,654
1940-41	1,407	718	1,362	1,075	501	477	457	1,064	3,205	7,168	7,163	3,053	2,311
1941-42	998	2,799	2,783	1,742	1,770	917	602	671	2,018	5,924	8,929	5,507	2,896
1942-43	2,174	1,048	767	680	641	644	615	538	3,718	5,987	9,871	7,843	2,885
1943-44	2,860	1,086	1,022	893	664	555	524	473	1,260	5,599	6,452	2,484	1,997
1944-45	1,539	1,375	1,581	1,349	935	764	690	675	1,067	6,453	10,614	4,884	2,666
1945-46	1,619	1,067	897	945	775	673	622	772	2,563	10,978	12,367	6,654	3,340
1946-47	2,301	1,589	1,127	895	882	685	768	1,049	2,800	9,134	9,387	4,941	2,973
1947-48	2,061	1,274	2,210	1,859	1,067	819	668	616	1,687	8,279	14,966	4,000	3,296
1948-49	2,588	1,679	1,488	1,066	804	585	508	653	2,592	9,480	7,013	3,123	2,644
1949-50	1,842	1,123	971	1,076	1,161	887	787	724	1,449	4,684	12,084	7,342	2,849
1950-51	2,524	1,265	1,551	1,696	1,583	1,373	1,348	999	2,549	8,827	9,546	7,678	3,425
1951-52	2,595	1,631	2,278	1,382	1,181	942	723	681	2,971	8,981	9,626	5,406	3,212
1952-53	2,074	1,085	732	571	532	617	727	735	1,342	6,392	11,085	7,570	2,797
1953-54	2,799	1,639	1,571	1,544	1,126	934	759	877	1,365	8,676	11,673	11,202	3,700
1954-55	3,844	2,730	1,717	1,771	1,520	1,010	770	644	1,315	3,815	13,790	10,397	3,619
1955-56	3,340	1,427	1,621	1,831	1,162	968	751	748	3,386	10,683	13,462	6,461	3,832
1956-57	2,306	1,300	1,523	1,157	915	728	639	680	1,629	12,277	9,131	3,322	2,983
1957-58	1,801	1,096	1,298	1,115	834	727	887	1,139	1,930	10,556	9,262	3,051	2,818
1958-59	1,289	1,110	1,656	1,245	919	961	730	699	2,010	7,087	13,628	8,262	3,308
1959-60	2,992	4,010	3,341	2,468	1,543	1,017	869	1,156	3,276	5,643	11,253	7,616	3,773
1960-61	2,372	1,697	1,459	1,388	949	854	1,016	1,186	2,254	8,871	16,106	4,496	3,555
1961-62	1,809	1,174	1,227	1,041	788	679	732	672	2,923	6,208	11,677	6,610	2,966
1962-63	3,014	1,601	1,835	1,812	1,458	1,158	1,166	1,165	2,362	7,010	11,323	5,779	3,314
1963-64	2,395	1,448	1,102	1,217	1,068	847	705	652	1,429	5,564	14,591	9,093	3,350
1964-65	3,960	2,570	2,525	1,722	1,097	896	837	934	2,696	6,498	10,927	5,131	3,324
1965-66	2,433	1,658	1,531	1,500	1,111	954	782	902	2,649	7,584	11,527	6,708	3,287
1966-67	2,304	1,197	1,006	1,045	1,116	972	932	915	1,479	6,169	17,470	8,988	3,637
1967-68	2,607	1,233	1,324	1,436	1,046	942	1,033	1,620	1,571	6,960	13,656	8,168	3,475
1968-69	3,506	2,645	2,047	1,615	1,200	731	704	792	3,407	10,254	12,004	5,330	3,697
1969-70	1,852	1,339	1,785	1,809	1,216	896	785	798	1,185	5,294	10,271	3,715	2,582
1970-71	1,607	1,105	1,104	910	823	858	1,587	1,038	2,305	10,772	13,256	8,519	3,666
1971-72	3,423	1,550	1,369	1,102	902	803	670	1,398	2,195	9,058	16,436	9,483	4,046
1972-73	3,691	1,742	1,599	1,157	884	811	665	846	1,408	6,196	8,525	4,786	2,704
1973-74	1,687	1,021	1,408	1,597	1,279	1,115	1,001	984	2,639	6,784	16,892	10,042	3,876
1974-75	3,712	1,516	829	733	688	639	628	664	1,164	5,367	11,460	7,130	2,887
1975-76	2,686	2,180	1,514	1,745	1,598	1,101	825	780	2,291	9,291	10,264	10,033	3,711
1976-77	5,727	3,408	1,598	1,010	785	632	625	664	1,848	5,741	7,756	3,197	2,758
1977-78	1,740	1,562	1,125	952	862	686	611	988	2,629	6,876	11,056	7,397	3,049
1978-79	2,801	2,856	1,981	1,276	899	682	611	909	1,405	6,411	8,185	4,115	2,686
1979-80	1,631	1,181	848	729	774	646	577	853	3,562	11,395	7,378	3,526	2,771
1980-81	1,823	1,532	1,384	1,264	1,262	1,423	1,279	1,489	2,285	9,066	10,774	9,912	3,640
1981-82	4,041	1,926	1,985	2,006	1,442	1,051	1,120	1,228	1,669	6,868	15,047	9,243	3,979
1982-83	3,688	2,336	2,000	1,555	1,131	1,029	1,134	1,912	2,717	7,806	11,324	7,307	3,673
1983-84	3,302	2,072	1,276	2,160	1,240	1,102	970	1,202	2,396	4,378	12,631	8,996	3,483
1984-85	2,895	1,724	1,294	1,088	795	662	571	586	2,214	8,441	10,068	3,702	2,845
1985-86	1,592	1,832	1,709	1,882	1,033	808	763	1,381	2,621	6,773	11,962	5,321	3,144
1986-87	2,197	1,268	1,296	1,199	893	720	636	1,301	2,404	9,177	6,567	3,338	2,596
1987-88	1,617	935	679	633	719	583	583	728	3,326	8,277	9,801	4,888	2,738

Table 3

Waneta Inflows													
Source: BPA Data (Feb 98) - Best estimate of regulated flows													
Inflow (cfs)													
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Ann.
	31	30	31	30	31	31	28	31	30	31	30	31	365
Minimum	7,681	10,570	15,327	12,856	13,264	11,653	8,782	11,887	15,308	20,389	12,614	7,604	15,499
Average	16,986	15,635	22,917	19,001	21,751	18,902	17,887	22,756	33,541	58,987	62,866	32,818	28,711
Maximum	28,512	24,656	37,508	31,390	35,799	34,173	30,895	43,346	54,196	98,812	125,724	66,451	40,698
1938-39	13,421	12,834	19,101	14,734	16,253	15,188	9,795	17,656	33,727	60,771	33,970	16,869	22,108
1939-40	10,300	11,808	18,097	14,216	16,685	11,875	12,690	22,489	30,289	40,278	21,367	11,371	18,492
1940-41	8,331	11,444	18,104	14,750	15,252	12,985	12,477	16,863	19,607	26,422	16,618	12,860	15,499
1941-42	7,998	13,979	19,275	16,765	34,072	17,695	13,650	16,776	27,457	41,748	58,572	35,752	24,625
1942-43	14,271	14,487	19,614	17,849	19,412	18,623	13,756	18,751	54,196	70,204	77,001	55,725	32,892
1943-44	22,792	15,423	21,712	16,327	16,333	12,183	11,526	11,887	15,792	24,663	21,742	14,442	17,111
1944-45	7,851	11,057	15,327	12,856	13,264	14,580	10,721	16,968	16,752	42,975	48,874	30,163	20,168
1945-46	12,916	13,207	20,725	18,383	21,656	20,361	12,610	20,288	39,073	69,730	58,662	28,650	28,101
1946-47	14,116	15,464	24,548	21,498	30,437	24,847	23,426	28,644	42,203	75,749	66,253	30,820	33,212
1947-48	17,031	17,067	34,601	24,155	24,362	22,299	15,537	19,330	36,080	88,860	125,724	39,014	38,729
1948-49	28,512	17,014	22,076	17,704	15,307	11,653	15,320	21,575	38,667	78,853	52,295	23,237	28,594
1949-50	15,052	13,420	20,631	20,219	23,376	20,382	21,454	30,108	38,623	60,648	92,764	66,451	35,308
1950-51	28,200	18,426	30,546	25,799	35,490	26,505	28,095	30,071	48,646	77,584	71,506	42,702	38,690
1951-52	24,006	21,150	34,012	23,022	25,114	22,503	16,557	19,330	43,531	78,266	47,893	26,857	31,957
1952-53	14,730	12,461	18,033	15,119	16,108	19,183	18,765	19,041	23,493	53,114	81,516	39,323	27,585
1953-54	20,836	12,545	20,832	16,534	19,679	18,164	17,580	22,305	29,816	73,771	87,521	59,484	33,348
1954-55	23,803	20,318	23,794	20,039	20,815	13,464	12,718	13,197	22,374	40,941	76,886	52,480	28,460
1955-56	21,107	14,794	29,211	21,534	32,742	26,380	20,981	25,682	51,157	98,812	88,283	31,617	38,610
1956-57	20,886	15,530	22,687	17,554	21,044	14,871	15,459	21,702	28,740	78,641	64,712	22,754	28,792
1957-58	13,482	12,396	21,130	16,305	18,175	16,475	18,471	22,259	30,341	71,086	50,929	20,206	25,982
1958-59	13,489	13,383	22,538	22,256	29,554	24,998	26,685	26,095	40,808	64,396	95,074	42,648	34,992
1959-60	21,026	24,513	37,508	31,390	34,964	25,393	18,428	24,900	48,670	55,944	62,066	31,096	34,715
1960-61	18,393	15,358	21,158	20,058	18,465	18,087	24,626	24,632	32,968	69,759	84,263	26,712	31,184
1961-62	12,283	13,187	24,040	16,829	18,399	19,820	16,773	19,990	42,196	65,614	58,569	25,211	27,778
1962-63	16,004	14,470	25,204	21,529	26,284	18,807	23,262	22,362	29,929	44,446	44,773	26,416	26,130
1963-64	13,571	14,600	19,128	17,501	16,275	15,259	11,269	16,412	24,117	58,092	97,833	44,355	29,076
1964-65	21,377	19,863	23,642	19,407	27,230	22,089	20,948	26,550	46,069	77,680	86,198	36,648	35,683
1965-66	20,256	21,835	25,291	19,213	19,450	15,006	12,075	21,277	36,506	50,994	48,908	27,012	26,547
1966-67	12,885	13,060	19,449	18,152	23,026	24,671	23,375	23,048	23,566	56,875	94,396	36,169	30,711
1967-68	17,178	12,154	22,332	20,022	19,450	18,579	21,105	27,348	24,289	41,892	52,752	24,521	25,145
1968-69	19,698	24,656	32,060	24,599	26,225	22,662	20,243	21,667	51,563	81,947	54,489	30,607	34,265
1969-70	12,672	14,792	22,662	17,238	17,000	17,786	16,324	19,342	21,628	57,991	75,639	27,712	26,756
1970-71	14,725	13,924	22,672	17,756	18,676	20,193	30,895	27,682	41,884	82,045	90,816	38,894	34,981
1971-72	20,774	15,156	21,392	17,145	17,524	18,394	21,691	43,346	48,943	72,965	108,082	40,930	37,212
1972-73	23,139	16,118	22,272	17,263	18,761	15,417	11,886	19,183	16,883	28,831	29,809	14,769	19,585
1973-74	9,651	11,573	17,995	22,861	30,206	34,173	30,834	31,185	51,232	72,478	113,234	63,170	40,698
1974-75	22,148	16,082	19,988	17,046	17,525	16,702	13,333	17,966	20,591	51,621	94,425	58,464	30,560
1975-76	24,133	20,764	26,879	23,133	35,799	21,230	23,014	22,705	41,946	79,433	64,624	38,222	35,230
1976-77	25,203	20,916	21,231	15,799	14,886	12,536	12,446	13,528	15,308	20,389	12,614	7,604	16,067
1977-78	7,681	11,927	19,686	16,635	24,994	20,245	13,505	24,657	41,964	58,893	58,711	39,781	28,299
1978-79	21,568	20,314	21,284	16,921	15,072	14,726	16,609	21,561	23,543	58,601	45,976	19,644	24,695
1979-80	12,262	13,227	18,433	15,079	16,336	15,459	12,399	19,345	30,945	64,491	52,562	30,120	25,127
1980-81	14,609	16,680	22,696	19,346	33,786	28,907	27,282	25,367	27,310	59,883	66,583	37,323	31,674
1981-82	19,559	13,364	21,168	17,708	19,180	20,645	29,122	34,444	33,026	63,407	85,556	54,222	34,292
1982-83	22,054	16,235	24,339	18,369	19,814	21,108	21,271	31,894	27,500	44,798	47,031	41,988	28,097
1983-84	22,637	16,328	22,649	24,192	19,642	20,923	20,496	23,266	28,399	41,354	58,672	33,467	27,681
1984-85	17,640	16,996	22,398	19,766	16,585	14,986	12,734	16,743	30,937	53,687	45,019	14,965	23,576
1985-86	13,210	20,482	29,920	23,893	23,364	18,490	21,644	36,045	41,879	40,710	41,349	21,772	27,734
1986-87	11,162	14,412	23,488	20,353	19,499	14,877	11,714	24,735	31,763	42,883	15,627	12,879	20,350
1987-88	8,689	10,570	18,272	13,210	14,010	12,725	8,782	15,600	30,099	34,119	23,562	31,060	18,460

Table 4

Kootenay Lake Inflows: Regulated AOP													
Source: 2003 AOP (study 03-42) dated 13 April 1998, for power and flood control only													
Inflow (cfs)													
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Ann.
	31	30	31	30	31	31	28	31	30	31	30	31	365
Minimum	14,047	11,498	12,775	16,351	16,646	8,899	6,264	7,476	13,191	25,664	27,585	15,858	18,449
Average	22,474	19,525	16,855	26,195	30,230	26,888	20,491	13,722	24,685	47,795	51,079	35,620	27,992
Maximum	43,351	38,011	32,389	36,093	42,932	40,522	32,712	24,051	44,821	76,824	95,080	75,410	37,187
1938-39	17,018	17,732	15,189	21,899	27,196	11,528	9,828	8,904	23,397	48,755	35,683	30,797	22,404
1939-40	18,030	17,727	19,856	25,698	30,972	11,740	10,213	11,390	20,708	44,276	32,044	21,664	22,101
1940-41	16,584	19,360	14,765	23,450	28,266	12,616	6,745	9,755	24,378	30,258	29,231	18,828	19,574
1941-42	16,619	21,598	19,946	25,167	42,932	33,897	23,979	11,984	21,029	36,148	40,023	42,953	28,068
1942-43	23,860	19,268	16,058	22,549	28,582	29,631	22,096	12,422	41,742	35,853	44,537	45,264	28,502
1943-44	22,788	16,833	14,773	22,655	27,078	11,448	6,264	10,790	15,903	25,664	27,585	18,719	18,449
1944-45	14,047	11,498	18,018	23,462	25,184	14,974	7,875	10,525	16,552	36,708	39,683	16,910	19,681
1945-46	17,830	14,192	12,775	17,495	22,431	34,556	24,924	14,755	26,835	60,162	51,361	38,429	28,009
1946-47	21,098	20,823	14,432	24,868	30,960	34,429	27,107	17,897	27,979	55,395	44,547	35,795	29,632
1947-48	18,938	19,140	32,389	35,076	32,309	40,438	27,485	13,183	26,795	50,048	82,741	30,877	34,098
1948-49	25,852	18,774	15,428	24,234	27,418	10,310	7,202	8,530	24,910	71,375	30,996	20,054	23,882
1949-50	19,133	17,538	14,986	21,099	31,891	36,828	28,183	17,249	23,277	44,166	66,517	46,531	30,620
1950-51	25,218	18,283	21,326	33,868	39,252	40,520	32,712	19,976	31,789	68,806	41,736	54,169	35,708
1951-52	25,482	23,209	25,448	30,280	32,585	27,680	22,095	11,643	32,239	54,905	44,408	29,226	29,969
1952-53	18,655	17,876	14,554	20,022	26,427	30,020	26,597	11,925	16,937	41,742	49,173	44,328	26,526
1953-54	23,794	17,870	15,676	26,429	29,900	39,350	30,921	14,939	20,298	64,236	63,982	75,410	35,303
1954-55	35,110	26,827	16,801	31,481	32,406	31,838	20,647	9,988	13,191	30,974	66,981	53,540	30,857
1955-56	24,933	18,896	20,277	34,148	33,930	40,522	31,837	16,186	39,606	72,053	70,752	40,916	37,005
1956-57	22,528	17,967	16,760	24,793	29,882	22,354	15,608	11,350	18,348	76,824	41,290	22,381	26,776
1957-58	17,679	17,497	14,898	21,787	27,189	19,766	15,812	10,315	18,609	65,702	33,148	24,436	23,982
1958-59	16,664	17,521	15,243	26,081	30,426	40,521	31,054	13,596	27,144	44,563	69,911	45,394	31,474
1959-60	25,873	38,011	29,086	36,093	35,872	30,258	22,073	17,375	38,155	36,883	50,685	35,602	33,002
1960-61	21,624	19,657	16,000	26,354	28,225	39,855	32,712	18,769	21,712	56,995	91,997	20,624	32,801
1961-62	20,572	19,225	15,916	25,368	28,316	20,639	18,700	9,124	33,284	33,931	47,767	32,194	25,409
1962-63	22,779	18,152	16,557	29,384	33,627	29,427	26,819	14,364	21,260	38,033	43,103	36,734	27,521
1963-64	21,797	20,135	15,478	25,949	29,896	34,609	22,391	10,243	16,423	38,404	65,761	41,509	28,562
1964-65	25,013	21,236	20,672	29,391	30,351	34,578	26,273	13,965	27,682	40,643	48,058	34,114	29,332
1965-66	26,128	19,602	16,770	29,605	30,396	37,277	24,521	14,561	29,998	44,875	51,703	34,563	30,015
1966-67	21,090	18,064	15,218	22,892	30,495	40,522	31,730	14,391	14,116	41,730	95,080	40,303	32,080
1967-68	22,751	18,577	15,472	26,136	28,880	27,581	20,457	17,318	14,926	39,450	56,878	41,177	27,506
1968-69	24,474	23,884	18,080	30,982	32,074	40,280	27,102	14,520	44,821	63,146	57,827	36,764	34,503
1969-70	18,961	18,517	15,415	26,838	28,728	11,821	7,810	8,193	18,685	37,043	47,825	25,127	22,133
1970-71	16,395	16,967	13,854	20,454	28,239	39,672	32,712	16,165	26,025	63,861	58,775	41,565	31,219
1971-72	26,711	18,061	14,619	24,300	28,046	38,528	30,209	24,051	21,058	59,520	85,433	49,808	35,044
1972-73	33,395	19,014	16,561	26,750	29,920	12,169	8,114	8,447	18,715	34,105	42,397	31,617	23,524
1973-74	18,123	18,175	15,100	22,450	33,056	40,522	32,712	19,976	34,901	74,351	92,256	44,807	37,187
1974-75	30,418	18,903	13,983	23,999	29,096	20,583	15,593	9,909	13,326	39,991	60,475	42,929	26,663
1975-76	24,092	20,901	16,435	31,844	42,121	40,522	30,282	13,148	28,089	53,758	39,825	39,611	31,748
1976-77	43,351	28,557	13,994	23,598	28,614	10,618	7,396	10,983	20,655	28,101	34,727	26,930	23,215
1977-78	15,423	16,665	20,569	24,319	16,646	8,899	11,523	14,672	24,734	40,449	44,476	39,629	23,215
1978-79	21,144	25,746	16,207	25,689	27,520	10,150	8,426	9,090	18,670	37,045	29,108	26,782	21,365
1979-80	16,541	17,161	14,609	16,351	28,322	19,704	14,810	10,558	37,599	67,205	28,783	15,858	24,022
1980-81	17,968	18,019	15,345	26,842	39,134	40,521	32,712	19,976	25,983	50,745	42,446	44,283	31,183
1981-82	31,467	19,985	16,260	27,780	31,134	31,892	28,657	18,134	18,205	47,047	65,412	40,861	31,410
1982-83	26,931	24,109	17,775	27,388	31,781	26,924	20,643	19,976	27,025	44,640	44,018	44,983	29,747
1983-84	26,107	18,509	14,595	32,677	29,894	15,363	11,391	10,749	18,831	26,769	62,591	39,339	25,601
1984-85	22,715	18,355	13,328	24,385	28,551	10,498	7,186	7,476	20,485	54,097	43,411	25,007	23,047
1985-86	18,797	17,530	13,287	31,773	29,809	26,228	19,958	21,267	30,545	40,485	48,058	28,634	27,205
1986-87	21,336	18,375	15,626	29,885	30,845	13,402	8,198	15,223	29,275	62,069	29,931	27,427	25,253
1987-88	19,848	15,737	16,323	23,718	24,715	16,377	14,278	16,157	27,378	35,743	38,828	32,000	23,468

Table 5

Kootenay Lake Inflows: Regulated with Non-Power													
Source: 1998 BPA Ratecase													
Inflow (cfs)													
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Ann.
	31	30	31	30	31	31	28	31	30	31	30	31	365
Minimum	13,172	10,201	10,703	10,515	14,287	7,766	6,595	7,078	10,086	26,551	27,952	12,339	16,286
Average	26,399	21,292	17,234	15,767	23,813	14,922	24,442	15,621	23,516	59,083	61,335	31,845	27,918
Maximum	38,023	36,819	36,176	28,006	35,824	21,639	32,820	24,052	44,820	97,851	112,382	66,133	37,002
1938-39	13,172	15,464	13,484	12,140	21,366	14,046	25,628	8,905	22,635	41,399	40,993	27,755	21,366
1939-40	24,503	16,715	18,448	15,801	25,779	14,361	11,392	17,393	20,475	54,101	44,680	17,421	23,510
1940-41	13,535	12,639	13,631	14,369	20,166	11,033	16,639	9,756	17,679	37,580	28,493	16,337	17,656
1941-42	19,818	24,931	20,597	19,906	35,824	16,930	32,711	7,959	18,557	52,547	53,479	40,119	28,574
1942-43	30,850	19,150	13,706	13,198	22,798	14,333	32,711	19,197	41,290	50,245	58,537	32,522	28,971
1943-44	24,271	17,184	13,440	12,103	20,973	8,290	10,911	10,885	10,086	26,551	27,952	12,339	16,286
1944-45	19,213	18,024	15,924	17,337	14,343	7,766	9,464	7,466	11,241	36,708	47,243	33,595	19,906
1945-46	25,611	17,135	13,481	10,515	20,101	15,478	32,712	19,977	32,548	77,340	63,632	25,562	29,465
1946-47	28,097	21,631	14,117	13,044	24,627	16,105	32,711	19,976	34,622	75,496	54,190	21,709	29,656
1947-48	25,417	20,190	32,515	22,795	25,976	15,874	32,252	19,976	21,930	65,162	82,463	36,933	33,430
1948-49	30,895	26,517	17,163	13,050	21,086	13,843	18,438	19,976	30,395	71,100	42,919	14,700	26,724
1949-50	13,863	10,201	11,502	13,235	19,013	15,557	32,711	19,977	24,548	64,071	77,109	39,724	28,393
1950-51	26,974	24,703	21,452	21,589	32,920	16,254	32,711	19,976	31,789	97,851	55,366	39,084	35,094
1951-52	30,586	27,371	31,651	17,999	26,254	15,562	32,820	19,674	30,959	69,148	56,077	21,009	31,566
1952-53	14,170	16,990	11,720	10,971	19,771	17,305	32,711	19,977	14,645	57,558	63,509	29,836	25,698
1953-54	28,831	18,677	14,593	15,397	23,566	16,053	32,711	19,977	22,991	84,216	70,405	66,133	34,505
1954-55	36,062	30,564	27,566	19,200	26,074	15,668	18,936	7,286	13,222	45,877	81,612	47,751	30,857
1955-56	30,915	27,065	21,724	21,868	27,596	15,369	32,820	19,976	43,576	91,193	73,983	38,131	37,002
1956-57	34,267	21,550	16,227	13,193	23,549	14,538	21,963	19,976	20,815	83,967	49,945	16,050	28,071
1957-58	16,132	16,459	13,849	12,203	21,944	14,997	19,193	14,473	17,290	76,019	43,845	13,510	23,370
1958-59	23,028	17,641	15,236	14,664	24,095	15,665	32,712	19,977	28,218	65,244	75,157	38,457	30,792
1959-60	31,212	36,819	36,176	28,006	29,540	15,925	32,819	19,977	38,154	53,235	64,558	28,247	34,490
1960-61	17,952	20,709	14,811	15,433	21,893	16,225	32,712	19,977	22,098	86,065	86,673	30,874	32,068
1961-62	25,763	18,352	16,917	13,437	22,397	14,523	29,231	8,053	24,779	49,035	58,679	22,744	25,255
1962-63	29,779	18,510	16,294	17,954	27,293	16,766	32,713	14,038	20,163	54,308	57,763	25,308	27,521
1963-64	28,797	20,943	14,079	15,246	23,564	15,973	32,820	9,854	17,236	55,244	72,795	31,327	28,081
1964-65	29,007	28,352	23,028	17,111	24,019	16,254	32,712	19,976	32,369	56,719	63,000	21,991	30,306
1965-66	26,982	20,408	16,895	17,324	24,063	15,833	32,711	19,977	29,998	61,989	63,663	25,973	29,591
1966-67	26,791	18,359	12,915	13,389	24,539	15,980	32,711	19,977	18,684	62,572	88,377	42,479	31,351
1967-68	28,492	26,708	16,077	15,008	22,548	15,673	22,493	14,629	12,951	56,283	65,248	39,119	27,958
1968-69	33,513	24,691	18,207	18,702	25,742	15,936	32,712	19,978	44,820	79,188	67,830	35,693	34,721
1969-70	24,688	19,397	15,879	14,909	22,395	15,453	14,792	7,774	11,351	37,231	49,344	31,356	22,088
1970-71	23,131	16,375	12,420	11,405	21,960	16,303	32,712	19,976	27,381	77,796	68,425	39,419	30,588
1971-72	32,537	25,756	15,409	13,334	21,714	15,195	32,819	24,052	21,058	79,256	84,090	55,147	35,038
1972-73	38,023	25,569	20,923	14,470	23,586	11,753	27,699	8,363	13,043	49,349	47,795	21,040	25,112
1973-74	13,672	12,826	14,042	17,727	26,724	21,639	32,713	19,976	34,901	75,186	112,382	46,259	35,598
1974-75	35,406	26,001	15,206	14,046	22,764	14,495	32,711	19,976	18,900	54,894	68,022	29,172	29,245
1975-76	17,592	13,421	14,925	19,748	35,788	16,139	32,820	19,977	28,088	73,614	54,066	34,241	30,025
1976-77	35,744	32,313	22,665	11,761	22,282	7,970	12,003	9,839	14,123	30,841	30,114	15,736	20,501
1977-78	22,039	21,112	16,362	17,011	15,952	13,365	32,711	12,929	20,153	55,556	58,034	26,797	25,913
1978-79	26,073	26,017	15,947	13,807	21,189	8,763	11,523	9,545	13,036	37,664	50,108	17,817	20,983
1979-80	23,051	15,740	10,703	11,039	21,754	13,847	12,867	9,444	29,617	61,455	52,444	29,191	24,324
1980-81	22,999	18,606	14,817	15,871	32,801	16,327	20,067	12,851	22,715	55,095	74,268	57,925	30,419
1981-82	36,225	27,084	19,543	15,935	24,801	16,264	14,181	13,718	15,727	53,629	93,782	45,227	31,410
1982-83	32,504	30,335	21,507	15,109	25,449	18,210	10,618	16,266	21,393	52,864	63,880	47,350	29,747
1983-84	34,535	25,514	13,130	22,039	23,563	17,978	8,922	14,114	17,065	26,769	61,127	41,678	25,608
1984-85	35,754	20,595	12,017	13,590	22,218	14,129	6,595	7,078	20,815	48,891	54,710	24,590	23,509
1985-86	21,969	19,750	17,853	19,494	23,477	15,818	10,493	21,268	24,670	44,510	69,624	36,113	27,154
1986-87	30,485	18,029	16,184	18,759	24,513	15,323	9,266	15,223	24,021	49,879	47,400	28,935	24,939
1987-88	25,016	15,531	14,726	12,101	14,287	12,994	8,091	9,501	26,973	51,637	46,974	19,033	21,471

Table 6

Target Monthend Elevations (in feet above EI 1700)										
Kootenay Lake @ Queens Bay										
								[For studies incl Brilliant Expansion]		
Month	KL Curve 1				KL Curve 2				KL Curve 3	
	Unregulated Rule Curve	Note	Brilliant Min Flows (cfs)		Regulated Rule Curve	Note	Brilliant Min Flows (cfs)		Regulated Rule Curve with Min Flows	Brilliant Min Flows (cfs)
August	43.32	1	0		43.32	1	0		43.32	18000
September	44.52	2	0		45.02	5	0		45.02	18000
October	45.32	2	0		45.02	5	0		45.02	16000
November	45.32	2	0		45.02	5	0		45.02	16000
December	44.17	2	0		45.02	5	0		45.02	18000
January	40.20	2	0		43.70	6	0		43.70	18000
February	38.10	2	0		41.70	7	0		41.70	18000
March	38.00	3	0		39.02	8	0		39.02	18000
April	38.00	3	0		38.00	3	0		38.00	18000
May	46.50	4	0		46.50	4	0		46.50	18000
June	46.30	4	0		46.30	4	0		46.30	18000
July	44.20	4	0		44.20	4	0		44.20	18000
Notes:										
1) Set = IJC Ratchet elevation (1743.32' @ Nelson gauge], since water level drop between gauges provides for operating differential.										
2) Target elevation as specified by FortisBC										
3) Set = minimum licenced lake elevation										
4) Set = average historical monthend lake levels, since the ratchet is seldom if ever triggered during May, June or July.										
5) Set = IJC maximum elevation (1745.32') - 0.3' operating margin.										
6) Set = IJC maximum elevation (1744.0') - 0.3' operating margin.										
7) Set = IJC maximum elevation (1742.0') - 0.3' operating margin.										
8) Set = IJC maximum elevation (1739.32') - 0.3' operating margin.										

Table 7

		Plant Characteristics															Pre-WAX		Post WAX Start-up											
Option#	4		3		3		N/A [Built into Plant Data1 in CPA Model]					2		3		4		5		5		12		13		14		15		
Plant	Plant #1: LBO [2 UG]		Plant #2: UBO [1UG]		Plant #3: SLO [1UG]		Plant #4: COR [1 ULE]					BRD Base 1475/77		BRD Base		Plant #5: Brilliant 4UG		Brilliant Facility		Plant #6: Waneta [4UG]		W1		W2		W3 (KRS est)		W4		
	Flow	Generation	Flow	Generation	Flow	Generation	Flow	Generation (for indicated forebay elevation)				Flow	Generation	Flow	Generation	Flow	Generation	Flow	Generation	Flow	Generation	WAF 25 kcfs	WAF 46.33 kcfs	WAF 54.012 kcfs	Full WAF					
	cfs	MW	cfs	MW	cfs	MW	cfs	34.0	38.0	42.0	46.0	50.0	cfs	MW	cfs	MW	cfs	MW	cfs	MW	cfs	MW	cfs	MW	cfs	MW	cfs	MW		
	0	0.00	0	0.00	0	0.00	0	0.00	0.00	0.00	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	-	0.0	0	0.0	0	0.00	0	0.00	
	3,500	17.04	3,500	10.54	3,500	17.30	3,500	12.09	13.03	13.98	14.92	15.87	7,000	51.70	7,000	52.70	7,000	48.03	7,600	45.56	4,000	56.15	7,000	112.86	7,000	112.86	7,000	112.86	7,000	112.86
	5,000	24.14	5,000	18.58	5,000	23.16	5,000	15.99	17.25	18.52	19.78	21.05	7,500	55.40	7,500	56.52	7,500	52.50	9,000	67.01	5,000	69.24	9,000	149.82	9,000	149.82	9,000	149.82	9,000	149.82
	5,300	25.96	5,300	20.07	5,300	24.85	5,300	16.68	18.00	19.33	20.65	22.30	8,000	58.90	8,000	60.08	8,000	57.39	11,000	85.31	6,000	92.59	11,000	168.31	11,000	168.31	11,000	168.31	11,000	168.31
	6,000	29.36	6,000	23.52	6,000	29.45	6,000	19.59	21.16	22.72	24.28	25.84	8,500	61.80	8,500	63.08	8,500	62.39	13,000	102.17	7,000	111.62	13,000	205.93	13,000	205.93	13,000	205.93	13,000	205.93
	7,000	32.81	7,000	28.45	7,000	33.92	7,000	23.31	25.18	27.05	28.93	30.80	9,000	64.10	9,000	65.37	9,000	67.18	15,000	118.40	8,000	119.06	14,000	222.05	14,000	222.05	14,000	222.05	14,000	222.05
	7,500	35.01	7,500	31.02	7,500	35.94	7,500	24.91	26.92	28.92	30.93	32.94	9,500	68.00	9,500	69.34	9,500	71.46	16,000	126.30	9,000	127.78	15,000	242.10	15,000	242.10	15,000	242.10	15,000	242.10
	8,000	38.09	8,000	33.05	8,000	37.65	8,000	26.26	28.39	30.51	32.64	34.76	10,000	72.40	10,000	73.83	10,000	74.91	17,000	134.06	10,000	147.60	16,000	262.54	16,000	262.54	16,000	262.54	16,000	262.54
	8,500	40.86	8,500	36.14	8,500	40.46	8,500	26.69	28.86	31.03	33.19	35.36	10,500	76.50	10,500	78.09	10,500	75.93	18,000	141.67	11,000	166.67	17,000	274.83	17,000	274.83	17,000	274.83	17,000	274.83
	9,000	43.22	9,000	39.06	9,000	43.28	9,000	28.65	30.98	33.31	35.64	37.98	10,800	78.90	10,800	80.53	10,800	75.88	19,000	149.11	12,000	183.35	18,000	295.71	18,000	295.71	18,000	295.71	18,000	295.71
	9,500	45.00	9,500	41.19	9,500	45.94	9,500	30.51	33.00	35.49	37.99	40.48	11,000	80.50	11,000	82.10	11,000	75.74	20,000	156.40	13,000	202.69	19,000	315.20	19,000	315.20	19,000	315.20	19,000	315.20
	10,000	46.23	10,000	43.91	10,000	48.40	10,000	32.26	34.91	37.55	40.20	42.84	11,500	84.10	11,500	85.81	11,500	80.40	21,000	163.53	14,000	220.82	20,000	331.50	20,000	331.50	20,000	331.50	20,000	331.50
	10,500	46.81	10,500	45.94	10,500	50.58	10,500	33.92	36.71	39.49	42.28	45.07	12,000	87.40	12,000	89.17	12,000	85.26	22,000	169.73	15,000	234.93	21,000	328.13	21,000	328.13	21,000	328.13	21,000	328.13
	10,800	46.79	10,800	47.42	10,800	51.74	10,800	34.84	37.71	40.58	43.45	46.32	12,500	90.30	12,500	92.14	12,500	90.19	23,000	177.10	16,000	246.14	22,000	348.96	22,000	348.96	22,000	348.96	22,000	348.96
	11,000	46.78	11,000	48.41	11,000	52.09	11,000	35.44	38.37	41.29	44.21	47.13	13,000	93.00	13,000	94.91	13,000	95.05	24,000	184.32	17,000	259.75	23,000	368.72	23,000	368.72	23,000	368.72	23,000	368.72
	11,500	46.74	11,500	50.66	11,500	52.20	11,500	36.82	39.87	42.91	45.96	49.00	13,500	97.20	13,500	99.24	13,500	99.70	25,000	191.36	18,000	278.00	24,000	384.39	24,000	384.39	24,000	384.39	24,000	384.39
	12,000	46.71	12,000	52.84	12,000	52.31	12,000	37.10	41.19	44.34	47.50	50.65	14,000	101.30	14,000	103.38	14,000	104.10	26,000	198.23	19,000	294.90	25,000	404.03	25,000	404.03	25,000	404.03	25,000	404.03
	12,500	46.68	12,500	55.02	12,500	52.41	12,500	36.94	41.64	45.55	48.79	52.04	16,000	115.40	16,000	117.74	16,000	112.64	28,000	211.36	20,000	313.82	26,000	403.83	26,000	422.71	26,000	422.71	26,000	422.71
	13,000	46.64	13,000	57.14	13,000	52.51	13,000	36.79	41.49	45.73	48.94	52.20	18,000	125.10	18,000	127.66	18,000	131.59	29,000	218.38	21,000	330.19	28,000	402.87	28,000	437.30	28,000	437.30	28,000	437.30
	13,500	46.61	13,500	59.44	13,500	52.60	13,500	36.64	41.33	45.51	48.83	52.09	18,400	125.70	18,600	129.60	20,000	146.44	30,000	225.22	22,000	342.96	30,000	401.70	30,000	471.80	30,000	471.80	30,000	471.80
	14,000	46.58	14,000	61.48	14,000	52.69	14,000	36.50	41.18	45.50	48.73	51.99	20,000	125.10	20,000	129.02	20,750	149.14	31,000	231.86	23,000	355.45	32,000	401.32	32,000	510.22	32,000	510.22	32,000	510.22
	16,000	46.44	16,000	62.32	16,000	53.01	16,000	35.95	40.62	44.98	48.34	51.60	22,000	124.30	22,000	128.21	22,000	148.57	32,000	237.59	24,000	365.93	34,000	400.93	34,000	544.33	34,000	544.33	34,000	544.33
	18,000	46.30	18,000	62.59	18,000	53.27	18,000	35.46	40.10	44.59	47.98	51.25	24,000	123.50	24,000	127.42	24,000	147.69	33,000	244.60	25,000	382.56	36,000	400.54	36,000	562.23	36,000	562.23	36,000	562.23
	20,000	46.16	20,000	62.79	20,000	53.47	20,000	35.00	39.62	44.22	47.65	50.92	25,000	123.10	25,000	127.03	25,000	147.26	34,000	251.44	26,000	401.59	38,000	399.96	38,000	601.18	38,000	601.18	38,000	601.18
	22,000	46.02	22,000	62.92	22,000	53.63	22,000	34.57	39.17	43.96	47.34	50.61	30,000	121.30	30,000	125.20	30,000	145.24	35,000	258.10	27,000	419.65	40,000	399.57	40,000	632.92	40,000	632.92	40,000	632.92
	24,000	45.88	24,000	63.01	24,000	53.74	24,000	34.16	38.75	43.52	47.05	50.31	40,000	118.00	40,000	121.91	40,000	141.71	36,000	264.61	28,000	436.55	42,000	398.80	42,000	663.64	42,000	663.64	42,000	663.64
	25,000	45.81	25,000	63.03	25,000	53.78	25,000	33.97	38.55	43.31	46.91	50.17	50,000	115.20	50,000	119.04	50,000	138.69	37,000	269.86	30,0									

Plant Characteristics Head Correction Factors

	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Base BRD Studies [1477' BRD forebay Nov through Mar; 1475' all other months; BRD generation table based on 1475' forebay]												
Lower Bonnington	1.000	0.988	0.988	0.988	0.988	0.988	0.988	0.988	0.994	1.000	1.000	1.000
Upper Bonnington	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
South Slocan	1.000	1.000	1.000	0.969	0.969	0.969	0.969	0.969	1.000	1.000	1.000	1.000
Corra Linn	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Brilliant	1.000	1.000	1.000	1.030	1.030	1.030	1.030	1.030	1.000	1.000	1.000	1.000
Waneta	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Brilliant Facility Studies [1477' all year; BRD forebay increase included directly in generation table]												
Lower Bonnington	1.000	0.988	0.988	0.988	0.988	0.988	0.988	0.988	0.994	1.000	1.000	1.000
Upper Bonnington	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
South Slocan	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969
Corra Linn	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Brilliant	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Waneta	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T					
1	Table 9: Entitlement Study Parameters, Study Results and Entitlement Summaries																								
2																									
3	Section 1 - Study Input Parameters and Explanatory Notes																								
4																									
5	This table is divided into five sections, as follows:																								
6	Section 1: Provides documentation of the study input parameters used to perform the CPA Model runs required for entitlement determination																								
7	Section 2: Provides the CPA Model output, prior to the application of Adjustment Factors, and leap-year and other adjustments, for the various studies																								
8	Section 3: Provides a computation of Entitlements prior to WAX Startup under current conditions																								
9	Section 4: Provides a computation of Entitlements post WAX Startup using currently available information																								
10	Section 5: Provides a computation of default Waneta Entitlement nominations under the Teck - BCH Co-ownership and Operating Agreement																								
11																									
12	Study Input Parameters																								
13																									
14	Study	Gen Vs Flow	Gen	Flow Data	Inflows	Koot Lk	Turbine Flow		KL Curve		Comments														
15			Table			Target	Min	Max																	
16	FBC Projects																								
17	LBO	2 Upgrades	4	Unregulated	U	1			WKP Request																
18	UBO	1 Upgrade	3	Unregulated	U	1			WKP Request																
19	SLO	1 Upgrade	3	Unregulated	U	1			WKP Request		SLO studies need BRD tables #3, 4 or 5 (with 1477' forebay levels and related head correction factors).														
20	COR		N/A	Unregulated	U	1			WKP Request																
21																									
22	Brilliant Facilities																								
23	B0U	Brilliant base 1475/77'	2	Unregulated	U	1	0	18,400	WKP Request		B0U is used to compute "base" entitlement amount														
24	B1U	Brilliant base 1477'	3	Unregulated	U	1	0	18,600	WKP Request		B1U is used to compute entitlement increments due to Upgrade														
25	B1R	Brilliant base 1477'	3	Agreed Regulated	R1	2	0	18,600	Regulated		B1R- B1U is indicative of regulation benefits from Base Brilliant														
26																									
27	B2U	Upgraded Brilliant 1477'	4	Unregulated	U	1	0	20,750	WKP Request		B2U - B1U is used to compute entitlements for Upgraded Brilliant														
28	B2R	Upgraded Brilliant 1477'	4	Agreed Regulated	R1	2	0	20,750	Regulated		B2R - B2U is indicative of regulation benefits from Upgraded Brilliant														
29																									
30	B3R	Brilliant Facilities	5	Best Est. Regulated	R2	3	18,000	38,100	Regulated with Min. Q		B3R is used in the calculation of Brilliant Expansion entitlements														
31						[16,000 in Oct, Nov]																			
32	Waneta Plant - Prior to WAX Startup																								
33		Waneta [4 UG] 100%	5	1998 Flow estimate	WF2			32,900			Waneta Plant Only - 4 units upgraded -- Not applicable after WAX Startup														
34																									
35	Waneta Facilities - Post WAX Startup																								
36	W1	Turbine flow limit: 25 kcfs	12	1998 Flow estimate	WF2		Various	25,000			W1 measures the effectiveness of Waneta Base water														
37	W2	Turbine flow limit: 46.33 kcfs	13	1998 Flow estimate	WF2		Various	46,330			W2- W1 measures the effectiveness of WAX Base water														
38	W3	Turbine flow limit: ~54.0 kcfs	14	1998 Flow estimate	WF2		Various	54,000	approx		W3-W2 measures the effectiveness of Waneta residual water														
39	W4	Total Facility Turbine flow	15	1998 Flow estimate	WF2		Various	54,300			W4 - W3 measures the effectiveness of WAX residual water														
40											All as documented in the Sizing Agreement														
41																									
42	Other Explanatory Notes (these explanations refer to specific notations in the tables):																								
43																									
44	Note 1	Adjustment made in accordance with the FortisBC Entitlement Adjustment Agreement																							
45	Note 2	Revised entitlement amount submitted by Teck and BCH to reflect the Co-Ownership and Operating Agreement, in accordance with CPA Schedule A, Section 6.8																							
46	Note 3	BRX adjustment factor was set = 0.86028 to maintain an annual energy amount as close to 452.413 as possible (energy amount prior to correction of minimum flow calculation) using 5 decimal places.																							
47	Note 4	Unless otherwise indicated (such as by Note2) , the Teck and BCH nomination data in this Table are based on the default computations under the COA as shown in Section 5 of this Table																							
48	Note 5	The regulated portion of the incremental Entitlement Capacity is defined as zero, and all incremental Entitlement Capacity associated with the Brilliant Upgrade is allocated to the unregulated portion;																							
49																									

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T		
50	Table 9 (cont'd) Entitlement Study Parameters, Study Results and Entitlement Summaries																					
51	Section 2 - CPA Model Outputs Pre-WAX (Prior to application of Adjustment Factors and other adjustments (Leap Year, COA, FBC Entitlement Adjustments))																					
52	Plt			Other	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Annual	Formula				
53	#			Details	0.744	0.72	0.744	0.72	0.744	0.744	0.672	0.744	0.72	0.744	0.72	0.744	8.76					
54					57.14%						Blue Entry = Data from Entitlement Calculation Program											
55	Average Monthly Capacity (MW)											Green Entry = Computed Value					Average					
56																						
57	FBC Projects						These values include all sig figs from the CPA Model runs, even if only 2 are present.															
58	1	LBO		Refer to Section 1	45.6	46.1	46.1	46.1	46.1	45.9	46.1	46.2	45.8	43.3	40.6	43.1	45.1		C(LBO)			
59	2	UBO			62.9	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	61.8	60.6	61.7	62.6		C(UBO)			
60	3	SLO			52.1	52.2	52.2	52.2	52.2	52.2	52.2	52.2	52.2	50.4	48.2	50.3	51.6		C(SLO)			
61	4	COR			43.4	46.6	47.5	47.9	47.4	44.3	40.5	39.4	36.1	32.5	29.8	34.2	40.8		C(COR)			
62		Sub-total			204.0	207.9	208.9	209.3	208.7	205.5	201.8	200.8	197.1	188.0	179.1	189.3	200.0					
63	Brilliant Facilities																					
64	5	Brilliant																				
65		Study B0U			121.5	125.4	125.5	129.4	129.3	129.3	129.4	129.4	123.6	111.8	105.3	111.9	122.7		C(B0U)			
66		Study B1U			125.4	129.3	129.4	129.5	129.5	129.4	129.6	129.6	127.5	115.6	109.0	115.7	125.0		C(B1U)			
67		Study B1R			126.3	129.1	129.1	126.2	124.8	125.2	126.6	128.7	127.3	121.2	116.5	120.3	125.1		C(B1R)			
68		Study B2U			145.3	148.9	148.9	149.1	149.0	149.0	149.1	149.1	147.4	135.1	127.7	135.1	144.5		C(B2U)			
69		Study B2R			146.4	148.7	148.8	146.3	144.8	145.0	146.4	148.6	147.3	141.0	136.0	140.0	144.9		C(B2R)			
70		Study B3R			257.5	198.1	180.7	175.4	234.0	175.8	231.6	210.5	226.0	263.2	260.6	264.9	223.2		C(B3R)			
71	Waneta Plant prior to WAX Startup						These values include all sig figs from the CPA Model runs, even if only 4 are present.															
72	6	Waneta [4 UG] 100%		Model Output	493.2	493.2	493.2	493.2	493.1	493.2	493.2	493.1	491.1	478.5	476.0	490.5	490.1		C(WAN)			
73		Teck-owned portion of Waneta		2/3rds	328.8	328.8	328.8	328.8	328.8	328.8	328.8	328.7	327.4	319.0	317.4	327.0	326.7		=2/3 C(WAN)			
74																						
75	Average Monthly Energy Generation (GWh)																Total					
76																						
77	FBC Projects																					
78	1	LBO		Refer to Section 1	33.089	31.857	31.119	30.089	32.271	33.331	30.068	30.283	32.115	31.415	28.485	31.255	375.377		E(LBO)			
79	2	UBO			45.618	35.888	33.177	32.798	35.075	44.476	34.497	31.494	43.362	44.828	42.537	44.786	468.538		E(UBO)			
80	3	SLO			37.784	34.765	33.081	32.085	34.570	37.867	33.075	31.631	36.471	36.579	33.810	36.456	418.174		E(SLO)			
81	4	COR			31.460	29.713	28.626	28.031	29.880	32.147	24.947	23.032	25.159	23.557	20.930	24.787	322.269		E(COR)			
82		Sub-total			147.951	132.224	126.002	123.002	131.796	147.820	122.588	116.441	137.108	136.378	125.761	137.285	1584.357					
83	Brilliant Facilities																					
84	5	Brilliant																				
85		Study B0U			88.110	67.643	63.715	64.438	66.591	83.825	63.948	60.340	83.714	81.134	73.912	81.166	878.535		E(B0U)			
86		Study B1U			90.944	69.171	65.131	63.925	66.065	83.207	63.439	59.825	86.173	83.883	76.511	83.912	892.187		E(B1U)			
87		Study B1R			91.562	85.400	89.741	88.512	90.531	87.060	77.175	89.130	88.985	87.899	81.753	87.234	1044.982		E(B1R)			
88		Study B2U			103.898	70.155	65.752	64.227	66.400	83.920	62.793	59.375	96.121	98.000	89.655	98.025	958.323		E(B2U)			
89		Study B2R			105.538	87.908	93.045	102.199	104.785	97.406	85.912	96.228	100.921	102.197	95.444	101.554	1173.137		E(B2R)			
90		Study B3R			165.152	118.476	109.857	100.301	134.120	109.844	137.413	119.140	127.476	184.650	182.348	180.542	1669.320		E(B3R)			
91	Waneta Plant prior to WAX Startup																					
92	6	Waneta [4UG] 100% for info		Model Output	195.765	174.698	261.155	211.585	245.771	217.625	185.807	256.996	309.375	341.587	317.216	302.929	3020.510		E(WAN)			
93		Teck-owned portion of Waneta		2/3rds	130.510	116.465	174.103	141.057	163.847	145.083	123.871	171.331	206.250	227.725	211.478	201.953	2013.673		=2/3 E(WAN)			

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
94	Table 9 (cont'd) Entitlement Study Parameters, Study Results and Entitlement Summaries																			
95	Section 3 Entitlement Amounts -- Pre WAX Startup																			
96																				
97	Plt			Adjustment	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Annual	Formula		
98	#			Factor	0.744	0.72	0.744	0.72	0.744	0.744	0.672	0.744	0.72	0.744	0.72	0.744	8.76			
99	Entitlement Capacity (MW)																			
100	FBC Projects																			
101	1	LBO		1.04010	47.4	47.9	48.0	48.0	48.0	47.8	48.0	48.0	47.7	45.0	42.2	44.8	46.9	= Round(ADJ*C(LB),1)		
102	2	UBO		1.04010	65.4	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	64.3	63.0	64.2	65.1	= Round(ADJ*C(UB),1)		
103	3	SLO		1.04010	54.2	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3	52.4	50.1	52.3	53.6	= Round(ADJ*C(SS),1)		
104	4	COR		1.04010	45.1	48.4	49.4	49.8	49.3	46.1	42.1	41.0	37.6	33.8	31.0	35.5	42.4	= Round(ADJ*C(CL),1)		
105		FBC Entitlement Adjustment		Note 1				5.9	5.9	5.9	5.9									
106		- Sub-total			212.1	216.1	217.2	223.5	223.0	219.6	215.8	208.8	205.1	195.5	186.3	196.8	210.0	[A] = Sum of previous rows		
107	Brilliant																			
108		- Base Brilliant Unreg			121.5	125.4	125.5	129.4	129.3	129.3	129.4	129.4	123.6	111.8	105.3	111.9	122.7	= Round(C(B0U),1)		
109		- Brilliant Upgrade Incr			20.1	19.6	19.7	20.1	20.0	19.8	19.9	19.9	20.0	19.8	19.5	19.7	19.8	= Round(C(B2R),1)-Round(C(B1R),1)		
110		- Brilliant Upgrade Reg Incr			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	= Zero		
111		Brilliant Plant			141.6	145.0	145.2	149.5	149.3	149.1	149.3	149.3	143.6	131.6	124.8	131.6	142.5	[B] = Sum of previous 3 rows		
112																				
113		Brilliant Expansion increment																		
114		- Before Adjustment			115.9	53.1	35.5	25.9	84.7	26.7	82.3	61.2	82.4	131.6	135.8	133.3	80.7	[D] = Round(C(B3R),1)-[A]		
115		- After Adjustment			115.9	63.1	47.5	35.9	94.7	36.7	92.3	71.2	92.4	131.6	135.8	133.3	87.5	[F]		
116	Waneta Plant				Sep through April adder = Max of +10 MW or 82% capacity factor on monthly energy amount.															
117		Waneta 100% for info			493.2	493.2	493.2	493.2	493.1	493.2	493.2	493.1	491.1	478.5	476.0	490.5	490.1	[G] = Round(C(WAN),1)		
118		Waneta default amount (adjusted for Teck ownership share)			328.8	328.8	328.8	328.8	328.8	328.8	328.8	328.7	327.4	319.0	317.4	327.0	326.8	[H] = Round(2/3 C(WAN),1)		
119		Teck & BCH Nomination		Note 2	226.7	229.2	232.1	235.0	236.8	237.1	236.2	234.0	231.8	229.5	228.0	226.4	231.9	[I] = input		
120		Waneta entitlement			226.7	229.2	232.1	235.0	236.8	237.1	236.2	234.0	231.8	229.5	228.0	226.4	231.9	[J] = If (isblank([I]), [H],[I])		
121																				
122	Aggregate Entitlement				696.3	653.4	642.0	643.9	703.8	642.5	693.6	663.3	672.9	688.2	674.9	688.1	671.9	= sum of [A] [B] [F] & [J]		
123																				
124																				
125																		Entitlement Totals (GWh)		
126	Entitlement Energy (GWh)				Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Annual	Nov-Feb	Aug-Apr	May-Jul
127				Leap Year Factor =>	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00893	1.00000	1.00000	1.00000	1.00000	1.00000				
128	FBC Projects			Adjustment Factor																
129	1	LBO		1.00349	33.204	31.969	31.227	30.194	32.383	33.447	30.443	30.389	32.227	31.524	28.584	31.364	376.955	126.467	285.483	91.472
130	2	UBO		1.00349	45.777	36.014	33.292	32.913	35.198	44.632	34.927	31.604	43.514	44.984	42.685	44.943	470.483	147.670	337.871	132.612
131	3	SLO		1.00349	37.916	34.886	33.196	32.197	34.691	37.999	33.487	31.741	36.598	36.706	33.928	36.584	419.929	138.374	312.711	107.218
132	4	COR		1.00349	31.570	29.817	28.726	28.128	29.984	32.259	25.257	23.113	25.247	23.639	21.003	24.874	323.617	115.628	254.101	69.516
133		- Sub-total		Note 1	148.467	132.686	126.441	123.432	132.256	148.337	124.114	116.847	137.586	136.853	126.200	137.765	1590.984	528.139	1190.166	400.818
134	Brilliant Facilities																			
135		- Base Brilliant Unreg		0.97756	86.133	66.126	62.285	62.992	65.096	81.944	63.071	58.986	81.835	79.313	72.253	79.345	859.379	273.103	628.468	230.911
136		- Brilliant Upgrade Unreg Incr		0.98435	12.751	0.968	0.612	0.297	0.330	0.702	-0.642	-0.443	9.792	13.896	12.939	13.892	65.094	0.687	24.367	40.727
137		- Brilliant Upgrade Reg Incr		0.97031	0.992	1.478	2.603	12.988	13.506	9.347	9.185	7.324	1.929	0.175	0.530	0.201	60.258	45.026	59.352	0.906
138		Brilliant Plant			99.876	68.572	65.500	76.277	78.932	91.993	71.614	65.867	93.556	93.384	85.722	93.438	984.731	318.816	712.187	272.544
139																				
140		Brilliant Expansion Incr		0.86028	42.201	33.351	29.008	10.010	36.449	2.504	47.655	36.627	16.109	65.467	71.149	61.879	452.409	96.618	253.914	198.495
141				Note 3	Brilliant Expansion energy entitlement increment = E(B3R) x 0.86028 rounded to 3 decimal places, less Upgraded Brilliant Plant energy															
142		Total Brilliant Facilities			142.077	101.923	94.508	86.287	115.381	94.497	119.269	102.494	109.665	158.851	156.871	155.317	1437.140	415.434	966.101	471.039
143	Waneta Plant																			
144		Scheduling agreement Increment		0.02233																
145		Waneta 100% Entitlement for info			182.737	163.072	243.775	197.504	229.415	203.142	174.990	239.893	288.786	318.855	296.106	282.769	2821.044			
146		Default Computation		0.93345	121.825	108.714	162.517	131.670	152.943	135.428	116.660	159.929	192.524	212.570	197.404	188.513	1880.697	536.701	1282.210	598.487
147		Teck & BCH Nomination per CPA Schedule A, Section 6.7			141.772	139.590	162.517	160.417	152.943	135.428	127.512	155.500	188.821	136.300	171.983	140.517	1813.300	576.300	1364.500	448.800
148		Entitlement amount			141.772	139.590	162.517	160.417	152.943	135.428	127.512	155.500	188.821	136.300	171.983	140.517	1813.300	576.300	1364.500	448.800
149																				
150	Aggregate Entitlement				432.316	374.199	383.466	370.136	400.580	378.262	370.895	374.841	436.072	432.004	455.054	433.599	4841.424	1519.873	3520.767	1320.657
151																				
152	Maximum Energy Delivery Rate (MW): Entitlement Capacity less 2.5% for Spinning Reserve and 2% for Regulation																			
153	1	LBO		4.45%	45.3	45.8	45.9	45.9	45.9	45.7	45.9	45.9	45.6	43.0	40.3	42.8	44.8	Average		
154	2	UBO		4.45%	62.5	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	61.4	60.2	61.3	62.2			

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
155	3	SLO		4.45%	51.8	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	50.1	47.9	50.0	51.2			
156	4	COR		4.45%	43.1	46.2	47.2	47.6	47.1	44.0	40.2	39.2	35.9	32.3	29.6	33.9	40.5			
157		FBC Entitlement Adjustment		Note 1	0.0	0.0	0.0	5.6	5.6	5.6	5.6	0.0	0.0	0.0	0.0	0.0	1.9			
158	5	Brilliant Plant		4.45%	135.3	138.5	138.7	142.8	142.7	142.5	142.7	142.7	137.2	125.7	119.2	125.7	136.2			
159		Brilliant Expansion Incr		4.45%	110.7	60.3	45.4	34.3	90.5	35.1	88.2	68.0	88.3	125.7	129.8	127.4	83.6			
160	6	Waneta [4 UG]		4.45%	216.6	219.0	221.8	224.5	226.3	226.5	225.7	223.6	221.5	219.3	217.9	216.3	221.6			
161																				
162	Aggregate Maximum Energy Delivery Rate				665.3	624.3	613.4	615.2	672.5	613.9	662.7	633.8	643.0	657.6	644.9	657.5	642.0			
163	- FortisBC sub-total				202.7	206.5	207.5	213.6	213.1	209.8	206.2	199.5	196.0	186.8	178.0	188.0	198.8			

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
164	Table 9 (cont'd) Entitlement Study Parameters, Study Results and Entitlement Summaries																			
165	Section 4 Entitlement Amounts -- Post WAX Startup																			
166																				
167	Plt			Adjustment	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Annual		Formula	
168	#			Factor	0.744	0.72	0.744	0.72	0.744	0.744	0.672	0.744	0.72	0.744	0.72	0.744	8.76			
169	Entitlement Capacity (MW)																			
170	FBC Projects (w/o WAX)																			
171	1	LBO		1.04010	47.4	47.9	48.0	48.0	48.0	47.8	48.0	48.0	47.7	45.0	42.2	44.8	46.9		= ADJ*Round(C(LBO),1)	
172	2	UBO		1.04010	65.4	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	64.3	63.0	64.2	65.1		= ADJ*Round(C(UBO),1)	
173	3	SLO		1.04010	54.2	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3	52.4	50.1	52.3	53.6		= ADJ*Round(C(SLO),1)	
174	4	COR		1.04010	45.1	48.4	49.4	49.8	49.3	46.1	42.1	41.0	37.6	33.8	31.0	35.5	42.4		= ADJ*Round(C(COR),1)	
175		FBC Entitlement Adjustment		Note 1				5.9	5.9	5.9	5.9									
176		FBC Sub-total			212.1	216.1	217.2	223.5	223.0	219.6	215.8	208.8	205.1	195.5	186.3	196.8	210.0		[A] = Sum of previous rows	
177	Brilliant Facilities																			
178		- Base Brilliant Unreg			121.5	125.4	125.5	129.4	129.3	129.3	129.4	129.4	123.6	111.8	105.3	111.9	122.7		= Round(C(B0U),1)	
179		- Brilliant Upgrade Unreg Incr		Note 5	20.1	19.6	19.7	20.1	20.0	19.8	19.9	19.9	20.0	19.8	19.5	19.7	19.8		= Round(C(B2R),1)-Round(C(B1R),1)	
180		- Brilliant Upgrade Reg Incr			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		= Zero	
181		Brilliant Plant			141.6	145.0	145.2	149.5	149.3	149.1	149.3	149.3	143.6	131.6	124.8	131.6	142.5		[B] = Sum of previous 3 rows	
182																				
183		Brilliant Expansion increment																		
184		- Before Adjustment			115.9	53.1	35.5	25.9	84.7	26.7	82.3	61.2	82.4	131.6	135.8	133.3	80.7		[D] = Round(C(B3R),1)-[A]	
185		- After Adjustment			115.9	63.1	47.5	35.9	94.7	36.7	92.3	71.2	92.4	131.6	135.8	133.3	87.5		[F]	
186	CPA Model results -- Waneta Facilities Studies post WAX Startup																			
187		Study W1	Waneta Base		403.9	404.0	403.6	403.9	403.5	403.9	403.8	403.5	400.8	392.6	382.8	386.0	399.4		C(W1)	
188		Study W2			727.6	727.7	727.7	727.7	727.7	727.7	727.7	727.7	727.2	717.6	677.6	675.7	718.3		C(W2)	
189		Study W3			813.2	820.0	820.0	820.0	820.0	820.0	819.7	820.0	820.0	810.1	757.5	752.5	807.7		C(W3)	
190		Study W4			816.7	823.9	823.9	823.9	823.9	823.9	823.5	823.9	823.9	814.0	760.8	755.7	811.5		C(W4)	
191		Study W3 - W2	Waneta residual		85.6	92.3	92.3	92.3	92.3	92.3	92.0	92.3	92.8	92.5	79.9	76.7	89.4			
192		Study W2 - W1	WAX Base		323.7	323.7	324.1	323.8	324.2	323.8	323.9	324.2	326.5	325.0	294.7	289.7	318.9			
193		Study W4 - W3	WAX Residual		3.5	3.9	3.9	3.9	3.9	3.9	3.8	3.9	3.9	3.9	3.3	3.2	3.8			
194	CPA Model Results -- Waneta Facilities Studies post WAX Startup																			
195		Study W1	Waneta Base		200.241	180.131	259.532	219.760	241.657	221.939	186.855	252.763	269.701	283.864	266.421	265.412	2848.276		E(W1)	
196		Study W2			201.962	180.188	273.461	221.698	261.036	226.684	191.561	271.569	372.837	493.087	459.530	363.038	3516.650		E(W2)	
197		Study W3			201.962	180.188	273.461	221.698	261.036	226.684	191.561	271.569	380.639	539.970	504.833	372.808	3626.408		E(W3)	
198		Study W4			201.962	180.188	273.461	221.698	261.036	226.684	191.561	271.569	380.697	541.818	506.552	373.210	3630.436		E(W4)	
199		Study W3 - W2	Waneta residual		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	7.802	46.884	45.303	9.769	109.758			
200		Study W2 - W1	WAX Base		1.721	0.057	13.929	1.938	19.379	4.745	4.706	18.806	103.135	209.223	193.109	97.626	668.374			
201		Study W4 - W3	WAX Residual		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.058	1.848	1.719	0.402	4.028			
202	Waneta Facilities																			
203		Attributable to Waneta (100%)						Note: these Teck & BCH nomination values are based on the calculations in Sction 5												
204		- Base Amount		1.00000	403.9	404.0	403.6	403.9	403.5	403.9	403.8	403.5	400.8	392.6	382.8	386.0	399.4		= Round(C(W1),1)	
205		- Residual Water		1.00000	85.6	92.3	92.3	92.3	92.3	92.3	92.0	92.3	92.8	92.5	79.9	76.7	89.4		= Round(C(W3-W2),1)	
206		Waneta Sub-Total			489.5	496.3	495.9	496.2	495.8	496.2	495.8	495.8	493.6	485.1	462.7	462.7	488.8		= sum of previous 2 rows	
207		Adjustment for Teck Ownership		0.666666667	326.3	330.9	330.6	330.8	330.5	330.8	330.5	330.5	329.1	323.4	308.5	308.5	325.9		[K] = ADJ* previous row	
208		Teck & BCH Nomination		Note 2	237.3	239.6	242.6	245.4	247.2	247.5	246.7	244.4	242.1	239.6	237.4	240.2	242.5		[L] = input from COA (see below)	
209		Entitlement attributable to Waneta			237.3	239.6	242.6	245.4	247.2	247.5	246.7	244.4	242.1	239.6	237.4	240.2	242.5		[M] = If (isblank([L]), [K],[L])	
210		Entitlement Attributable to WAX																		
211		- Base Amount		1.00000	323.7	323.7	324.1	323.8	324.2	323.8	323.9	324.2	326.5	325.0	294.7	289.7	318.9		= Round(C(W2)-C(W1),1)	
212		- Residual Water		1.00000	3.5	3.9	3.9	3.9	3.9	3.9	3.8	3.9	3.9	3.9	3.3	3.2	3.8		= Round(C(W4)-C(W3),1)	
213		WAX Sub-total			327.2	327.6	328.0	327.7	328.1	327.7	327.7	328.1	330.4	328.8	298.1	293.0	322.7		[N] = sum of previous 2 rows	
214		Sub-total Waneta Facilities			564.5	567.2	570.6	573.0	575.3	575.2	574.4	572.5	572.5	568.4	535.5	533.1	565.2		= [N]+[M]	
215		Sub-total WF before adjustment for Teck/BCH Nomination			816.7	823.9	823.9	823.9	823.9	823.9	823.5	823.9	824.0	813.9	760.8	755.7	811.5		= [N]+[206]	
216		Waneta Facilities 100% before nomination (for info)			816.7	823.9	823.9	823.9	823.9	823.9	823.5	823.9	824.0	813.9	760.8	755.7	811.5			
217	Aggregate Entitlement Capacity																			
218		Hours in Month			744.0	720.0	744.0	720.0	744.0	744.0	672.0	744.0	720.0	744.0	720.0	744.0	8760.0		= sum of [A] [B] [F] [M] & [N]	
219		EPA-specified HLH in month			416.0	400.0	400.0	400.0	400.0	416.0	384.0	432.0	384.0	416.0	416.0	400.0	4864.0			
220		EPA-specified Off Peak Hours in month			328.0	320.0	344.0	320.0	344.0	328.0	288.0	312.0	336.0	328.0	304.0	344.0	3896.0			
221		WAX Capacity to BCH with Energy			3.9	0.1	32.5	4.5	45.3	10.7	11.5	40.7	251.0	264.5	252.3	123.0	86.7			
222		WAX Capacity to FBC:HLH			323.3	327.5	295.5	323.1	282.9	317.1	316.2	287.5	79.4	64.3	45.8	170.0	236.0			
223		WAC Capacity to FBC: LLH			327.2	327.6	328.0	327.7	328.1	327.7	327.7	328.1	330.4	64.3	45.8	170.0	269.4			

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
224	Entitlement Energy (GWh)				Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Annual	Nov-Feb	Aug-Apr	May-Jul
225				Leap Year Factor =>	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00893	1.00000	1.00000	1.00000	1.00000	1.00000				
226	FBC Projects			Adjustment Factor																
227	1	LBO		1.00349	33.204	31.969	31.227	30.194	32.383	33.447	30.443	30.389	32.227	31.524	28.584	31.364	376.955	126.467	285.483	91.472
228	2	UBO		1.00349	45.777	36.014	33.292	32.913	35.198	44.632	34.927	31.604	43.514	44.984	42.685	44.943	470.483	147.670	337.871	132.612
229	3	SLO		1.00349	37.916	34.886	33.196	32.197	34.691	37.999	33.487	31.741	36.598	36.706	33.928	36.584	419.929	138.374	312.711	107.218
230	4	COR		1.00349	31.570	29.817	28.726	28.128	29.984	32.259	25.257	23.113	25.247	23.639	21.003	24.874	323.617	115.628	254.101	69.516
231		- Sub-total			148.467	132.686	126.441	123.432	132.256	148.337	124.114	116.847	137.586	136.853	126.200	137.765	1590.984	528.139	1190.166	400.818
232	Brilliant Facilities																			
233		- Base Brilliant Unreg		0.97756	86.133	66.126	62.285	62.992	65.096	81.944	63.071	58.986	81.835	79.313	72.253	79.345	859.379	273.103	628.468	230.911
234		- Brilliant Upgrade Unreg Incr		0.98435	12.751	0.968	0.612	0.297	0.330	0.702	-0.642	-0.443	9.792	13.896	12.939	13.892	65.094	0.687	24.367	40.727
235		- Brilliant Upgrade Reg Incr		0.97031	0.992	1.478	2.603	12.988	13.506	9.347	9.185	7.324	1.929	0.175	0.530	0.201	60.258	45.026	59.352	0.906
236		Brilliant Plant			99.876	68.572	65.500	76.277	78.932	91.993	71.614	65.867	93.556	93.384	85.722	93.438	984.731	318.816	712.187	272.544
237																				
238		Brilliant Expansion Incr		0.86028	42.201	33.351	29.008	10.010	36.449	2.504	47.655	36.627	16.109	65.467	71.149	61.879	452.409	96.618	253.914	198.495
239																				
240		Total Brilliant Facilities			142.077	101.923	94.508	86.287	115.381	94.497	119.269	102.494	109.665	158.851	156.871	155.317	1437.140	415.434	966.101	471.039

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
241	Table 9 (cont'd) Entitlement Study Parameters, Study Results and Entitlement Summaries																			
242	Section 4 (Cont'd) Entitlement Amounts -- Post WAX Startup																			
243	Waneta Facilities				Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Annual	Nov-Feb	Aug-Apr	May-Jul
244	Attributable to Waneta (100%)						Note 4: These Teck & BCH nomination values are based on the calculations in Section 5													
245	- Waneta Base Water			0.93345	186.915	168.144	242.260	205.135	225.574	207.169	175.977	235.942	251.753	264.973	248.691	247.749	2660.282	813.855	1898.869	761.413
246	- Waneta Residual water			0.77903	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	6.078	36.524	35.292	7.611	85.505	0.000	6.078	79.427
247	- WAX Base water			0.93400	1.607	0.053	13.010	1.810	18.100	4.432	4.435	17.565	96.328	195.414	180.364	91.182	624.300	1248.600	157.340	466.960
248	- WAX Residual Water			0.75670	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.044	1.398	1.301	0.305	3.048	6.096	0.044	3.004
249	Sub-total - Waneta Facilities				188.522	168.197	255.270	206.945	243.674	211.601	180.412	253.507	354.203	498.309	465.648	346.847	3373.135	842.632	2062.331	1310.804
250	Waneta sub-total for info				186.915	168.144	242.260	205.135	225.574	207.169	175.977	235.942	257.831	301.497	283.983	255.360	2745.787	813.855	1904.947	840.840
251	Teck share of Waneta for info			0.666666667	124.600	112.100	161.500	136.800	150.400	138.100	117.300	157.300	171.900	201.000	189.300	170.200	1830.525	542.600	1270.000	560.500
252	Teck & BCH Nomination			Note 4	151.907	143.795	164.093	167.384	153.041	140.069	140.861	159.809	200.688	138.397	173.776	146.567	1880.387	601.355	1421.647	458.740
253	Waneta entitlement				151.907	143.795	164.093	167.384	153.041	140.069	140.861	159.809	200.688	138.397	173.776	146.567	1880.387	601.355	1421.647	458.740
254	Attributable to WAX																			
255	WAX Sub-total for info				1.607	0.053	13.010	1.810	18.100	4.432	4.435	17.565	96.372	196.812	181.665	91.487	627.348	28.777	157.384	469.964
256	Sub-total Waneta Facilities before nomination				126.207	112.153	174.510	138.610	168.500	142.532	121.735	174.865	268.272	397.812	370.965	261.687	2457.848	571.377	1427.384	1030.464
257	Waneta Facilities 100% before nomination (for info)				190.129	168.250	268.280	208.755	261.774	216.033	184.847	271.072	450.575	695.121	647.313	438.334	4000.483	871.409	2219.715	1780.768
258	Waneta Facilities Entitlement (incl. nomination)				153.514	143.848	177.103	169.194	171.141	144.501	145.296	177.374	297.060	335.209	355.441	238.054	2507.735	630.132	1579.031	928.704
259	Aggregate Entitlement Energy				444.058	378.457	398.052	378.913	418.778	387.335	388.679	396.715	544.311	630.913	638.512	531.136	5535.859	1573.705	3735.298	1800.561
260																				
261																				
262	Maximum Energy Delivery Rate (MW): Entitlement Capacity less 2.5% for Spinning Reserve and 2% for Regulation																Average			
263	1 LBO			4.45%	45.3	45.8	45.9	45.9	45.9	45.7	45.9	45.9	45.6	43.0	40.3	42.8	44.8			
264	2 UBO			4.45%	62.5	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	61.4	60.2	61.3	62.2			
265	3 SLO			4.45%	51.8	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	50.1	47.9	50.0	51.2			
266	4 COR			4.45%	43.1	46.2	47.2	47.6	47.1	44.0	40.2	39.2	35.9	32.3	29.6	33.9	40.5			
267	FBC Entitlement Adjustment			Note 1	0.0	0.0	0.0	5.6	5.6	5.6	5.6	0.0	0.0	0.0	0.0	0.0	1.9			
268	5 Brilliant Plant			4.45%	135.3	138.5	138.7	142.8	142.7	142.5	142.7	142.7	137.2	125.7	119.2	125.7	136.2			
269	Brilliant Expansion Incr			4.45%	110.7	60.3	45.4	34.3	90.5	35.1	88.2	68.0	88.3	125.7	129.8	127.4	83.6			
270	6 Waneta			4.45%	226.7	229.0	231.8	234.4	236.2	236.5	235.8	233.5	231.3	228.9	226.8	229.5	231.7			
271	Waneta Expansion			4.45%	312.6	313.0	313.4	313.1	313.5	313.1	313.1	313.5	315.7	314.2	284.8	279.9	308.3			
272																				
273	Aggregate Maximum Energy Delivery Rate				988.0	947.3	936.8	938.2	996.0	936.9	985.9	957.2	968.5	981.4	938.6	950.6	960.5			
274	- FortisBC sub-total				202.7	206.5	207.5	213.6	213.1	209.8	206.2	199.5	196.0	186.8	178.0	188.0	198.8			
275																				
276																				

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	
277	Section 5 Computation of Teck Entitlements as per the Co-Ownership and Operating Agreement																				
278	Based on WAX Startup of Apr 2015																				
279																					
280					Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Annual				
281	New Entitlement for 100% of Waneta Plant (A Values)																				
282	Pre-WAX Startup Values																				
283		Aug 2013 to Jul 2014		- Capacity (MW)	493.2	493.2	493.2	493.2	493.1	493.2	493.2	493.1	491.1	478.5	476.0	490.5	490.1	From Table 9 Section 3			
284				- Energy (GWh)	182.737	163.072	243.775	197.504	229.415	203.142	174.990	239.893	288.786	318.855	296.106	282.769	2821.044				
285	Startup Year Values																				
286		Aug 2014 to Jul 2015		- Capacity (MW)	493.2	493.2	493.2	493.2	493.1	493.2	493.2	493.1	493.6	485.1	462.7	462.7	487.5	Above values until March			
287				- Energy (GWh)	182.737	163.072	243.775	197.504	229.415	203.142	174.990	239.893	257.831	301.497	283.983	255.360	2733.199	Values below after March			
288	Post WAX Startup Values																				
289		Aug 2015 to Jul 2016		- Capacity (MW)	489.5	496.3	495.9	496.2	495.8	496.2	495.8	495.8	493.6	485.1	462.7	462.7	488.8	From Table 9 Section 4			
290		and thereafter thru Dec 2035		- Energy (GWh)	186.915	168.144	242.260	205.135	225.574	207.169	175.977	235.942	257.831	301.497	283.983	255.360	2745.787				
291																					
292	Agreed `F` Values per COA																				
293	Forecast of Waneta Entitlements for 100% of the Plant - COA Table 1 (F Values)																				
294		Aug 2013 to Jul 2014		- Capacity (MW)	493.2	493.2	493.2	493.2	493.1	493.2	493.2	493.1	491.1	478.5	476.0	490.5	490.1				
295				- Energy (GWh)	182.737	163.072	243.776	197.505	229.415	203.143	174.990	239.894	288.786	318.855	296.105	282.769	2821.047				
296		Aug 2014 to Jul 2015		- Capacity (MW)	493.2	493.2	493.2	493.2	493.1	493.2	493.2	493.1	483.3	475.0	453.4	448.9	483.8				
297				- Energy (GWh)	182.737	163.072	243.776	197.505	229.415	203.143	174.990	239.894	249.800	299.400	282.300	249.200	2715.232				
298		Aug 2015 to Jul 2016		- Capacity (MW)	478.9	485.9	485.5	485.8	485.4	485.8	485.3	485.4	483.3	475.0	453.4	448.9	478.2				
299		and thereafter thru Dec 2035		- Energy (GWh)	182.400	163.900	234.500	198.200	217.600	201.300	171.700	228.400	249.800	299.400	282.300	249.200	2678.700				
300	Agreed Adjustments per COA Table 2 (`C` Values)																				
301		Aug 2013 to Jul 2014		- Capacity (MW)	595.3	592.8	589.9	587.0	585.1	584.9	585.8	587.9	586.7	568.0	565.3	591.1	585.0				
302				- Energy (GWh)	162.790	132.197	243.776	168.758	229.415	203.143	164.138	244.323	292.490	395.124	321.526	330.765	2888.445				
303		Aug 2014 to Jul 2015		- Capacity (MW)	595.3	592.8	589.9	587.0	585.1	584.9	585.8	587.9	573.7	562.2	527.6	521.8	574.5				
304				- Energy (GWh)	162.790	132.197	243.776	168.758	229.415	203.143	164.138	239.894	231.941	362.700	298.407	274.926	2712.085				
305		Aug 2015 to Jul 2016		- Capacity (MW)	571.5	580.6	577.0	574.7	572.2	572.6	572.6	575.0	573.7	562.2	527.6	521.8	565.1				
306		and thereafter thru Dec 2035		- Energy (GWh)	156.608	133.616	234.500	169.884	217.600	201.300	149.583	228.400	223.676	362.700	298.407	274.926	2651.200				
307	Agreed Forecast of Teck's Entitlement per COA Table 3																				
308		Aug 2013 to Jul 2014		- Capacity (MW)	226.7	229.2	232.1	235.0	236.8	237.1	236.2	234.0	231.8	229.5	228.0	226.4	231.9				
309				- Energy (GWh)	141.772	139.590	162.517	160.417	152.943	135.428	127.512	155.500	188.821	136.300	171.983	140.517	1813.300				
310		Aug 2014 to Jul 2015		- Capacity (MW)	226.7	229.2	232.1	235.0	236.8	237.1	236.2	234.0	231.8	229.5	228.0	226.4	231.9				
311				- Energy (GWh)	141.772	139.590	162.517	160.417	152.943	135.428	127.512	159.929	184.392	136.300	172.093	140.407	1813.300				
312		Aug 2015 to Jul 2016		- Capacity (MW)	226.7	229.2	232.1	235.0	236.8	237.1	236.2	234.0	231.8	229.5	228.0	226.4	231.9				
313		and thereafter thru Dec 2035		- Energy (GWh)	147.392	139.551	156.333	160.449	145.067	134.200	136.584	152.267	192.657	136.300	172.093	140.407	1813.300				
314																					
315	Teck's New Entitlement per COA formula Et = A +(PP*F) - C																				
316	Subject to agreed changes under the COA, these values would become the default nomination pursuant to CPA, Schedule A, Section 6.8																				
317		Aug 2013 to Jul 2014	0.667	- Capacity (MW)	226.7	229.2	232.1	235.0	236.7	237.1	236.2	233.9	231.8	229.5	228.0	226.4	231.9				
318				- Energy (GWh)	141.8	139.6	162.5	160.4	152.9	135.4	127.5	155.5	188.8	136.3	172.0	140.5	1813.297				
319		Aug 2014 to Jul 2015		- Capacity (MW)	226.7	229.2	232.1	235.0	236.7	237.1	236.2	233.9	242.1	239.6	237.4	240.2	235.5				
320				- Energy (GWh)	141.8	139.6	162.5	160.4	152.9	135.4	127.5	159.9	192.4	138.4	173.8	146.6	1831.269				
321		Aug 2015 to Jul 2016		- Capacity (MW)	237.3	239.6	242.6	245.4	247.2	247.5	246.7	244.4	242.1	239.6	237.4	240.2	242.5				
322		and thereafter thru Dec 2035		- Energy (GWh)	151.9	143.8	164.1	167.4	153.0	140.1	140.9	159.8	200.7	138.4	173.8	146.6	1880.387				
323																					
324	Change (New Entitlement minus COA Table 3)																				
325		Aug 2013 to Jul 2014		- Capacity (MW)	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0				
326				- Energy (GWh)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.003				
327		Aug 2014 to Jul 2015		- Capacity (MW)	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	-0.1	10.3	10.1	9.4	13.8	3.6				
328				- Energy (GWh)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	2.1	1.7	6.2	17.969				
329		Aug 2015 to Jul 2016		- Capacity (MW)	10.6	10.4	10.5	10.4	10.4	10.4	10.5	10.4	10.3	10.1	9.4	13.8	10.6				
330		and thereafter thru Dec 2035		- Energy (GWh)	4.5	4.2	7.8	6.9	8.0	5.9	4.3	7.5	8.0	2.1	1.7	6.2	67.087				

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W		
1	Table 10 -- Entitlement Adjustments for Outages																								
2																									
3		Table 10 includes the following sections:																							
4		Section 1: provides Entitlement energy and capacity adjustments for the Lower Bonnington, Upper Bonnington, South Slocan and Corra Linn projects (Plants 1 to 4).																							
5		Section 2: provides Entitlement energy and capacity adjustments for the Brilliant Facilities. This section includes the results of the CPA model runs necessary to compute the adjustments and the associated computations of the adjustments																							
6		Section 3: provides Entitlement energy and capacity adjustments for the Waneta Facilities, including Entitlement Calculation Program results of the studies needed to compute the adjustments as well as the detailed computation of the adjustments.																							
7		Section 3: also provides examples that demonstrate how outages at specific units at the Waneta Facilities and the resulting adjustments are allocated to either the Waneta Plant or the WAX PLant, in accordance with the WRCA and the further adjustments needed to these values after Jan 1, 2036 to properly account for Teck's Participation Percentage (Teck's ownership share) of the Waneta Plant.																							
8																									
9																									
10	Table 10 Section 1 - Capacity Entitlement Adjustments for Plants 1-4																								
11																									
12				Maximum Generation Capacity (Table 7)	MW Stranded by Water Licence	Capacity Entitlement Adjustments (MW)																			
13			MW on Outage			(or other data as indicated by leftmost column)																			
14			Gross			Net	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Avg.						
15				(MW)	(MW)	0.744	0.720	0.744	0.720	0.744	0.744	0.672	0.744	0.720	0.744	0.720	0.744	8.760							
16																									
17	1	Lower Bonnington	46.8	0.0																					
18		Capacity Entitlement Subject to Adjustment				47.4	47.9	48.0	48.0	48.0	47.8	48.0	48.0	47.7	45.0	42.2	44.8	46.9							
19		Capacity Schedule (due to FEEA Clause 2.1); Not subject to adjustment						5.9	5.9	5.9	5.9														
20		Capacity Entitlement with Capacity Schedule				47.4	47.9	48.0	53.9	53.9	53.7	53.9	48.0	47.7	45.0	42.2	44.8	48.8							
21		Capacity Adjustment Rate				1.0128	1.0235	1.0256	1.0256	1.0256	1.0214	1.0256	1.0256	1.0192	0.9615	0.9017	0.9573	1.0020							
22		1 Base			14.2	14.2	14.4	14.5	14.6	14.6	14.5	14.6	14.6	14.5	13.7	12.8	13.6	14.2							
23		1 UG			16.3	16.3	16.5	16.7	16.7	16.7	16.6	16.7	16.7	16.6	15.7	14.7	15.6	16.3							
24		1 Base 1 UG			30.5	30.5	30.9	31.2	31.3	31.3	31.2	31.3	31.3	31.1	29.3	27.5	29.2	30.6							
25		2 UG			32.6	32.6	33.0	33.4	33.4	33.4	33.3	33.4	33.4	33.2	31.3	29.4	31.2	32.7							
26		Full Project			46.8	46.8	47.4	47.9	48.0	48.0	47.8	48.0	48.0	47.7	45.0	42.2	44.8	46.9							
27																									
28	2	Upper Bonnington	63	1.5																					
29		Capacity Entitlement				65.4	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	64.3	63.0	64.2	65.1							
30		Capacity Adjustment Rate				1.0381	1.0397	1.0397	1.0397	1.0397	1.0397	1.0397	1.0397	1.0397	1.0206	1.0000	1.0190	1.0329							
31		1 Small			5.8	4.3	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.4	4.3	4.4	4.4							
32		2 Small			11.6	10.1	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.3	10.1	10.3	10.4							
33		1 Large (Base)			18.7	17.2	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.6	17.2	17.5	17.8							
34		1 UG			22.6	21.1	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.5	21.1	21.5	21.8							
35		1 Small 1 Large (Base)			24.5	23.0	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.5	23.0	23.4	23.8							
36		1 Small 1 UG			28.4	26.9	27.9	28.0	28.0	28.0	28.0	28.0	28.0	28.0	27.5	26.9	27.4	27.8							
37		1 Large (Base) 1 UG			41.3	39.8	41.3	41.4	41.4	41.4	41.4	41.4	41.4	41.4	40.6	39.8	40.6	41.1							
38		Full Project			64.5	63.0	65.4	65.5	65.5	65.5	65.5	65.5	65.5	65.5	64.3	63.0	64.2	65.1							
39																									
40	3	South Slocan	53.9	2.5																					
41		Capacity Entitlement				54.2	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3	52.4	50.1	52.3	53.6							
42		Capacity Adjustment Rate				1.0056	1.0074	1.0074	1.0074	1.0074	1.0074	1.0074	1.0074	1.0074	0.9722	0.9295	0.9703	0.9947							
43		1 Base			18.6	16.1	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	15.7	15.0	15.6	16.0							
44		1 UG			19.2	16.7	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.2	15.5	16.2	16.6							
45		2 Base			37.2	34.7	34.9	35.0	35.0	35.0	35.0	35.0	35.0	35.0	33.7	32.3	33.7	34.5							
46		1 Base 1 UG			37.8	35.3	35.5	35.6	35.6	35.6	35.6	35.6	35.6	35.6	34.3	32.8	34.3	35.1							
47		Full Project			56.4	53.9	54.2	54.3	54.3	54.3	54.3	54.3	54.3	54.3	52.4	50.1	52.3	53.6							
48																									
49	4	Corra Linn	52.2	0.0																					
50		Capacity Entitlement				45.1	48.4	49.4	49.8	49.3	46.1	42.1	41.0	37.6	33.8	31.0	35.5	42.4							
51		Capacity Adjustment Rate				0.8640	0.9272	0.9464	0.9540	0.9444	0.8831	0.8065	0.7854	0.7203	0.6475	0.5939	0.6801	0.8129							
52		Existing unit			17.4	17.4	15.0	16.1	16.5	16.6	16.4	15.4	14.0	13.7	12.5	11.3	11.8	14.1							
53		2 existing units			34.8	34.8	30.1	32.3	32.9	33.2	30.7	28.1	27.3	25.1	22.5	20.7	23.7	28.3							
54		Full Project			52.2	52.2	45.1	48.4	49.4	49.8	49.3	46.1	42.1	41.0	37.6	33.8	31.0	42.4							
55																									
56																									
57	Table 10 Section 1 (cont'd) - Energy Entitlement Adjustments for Plants 1-4																								
58																									
59						MW on Outage		Energy Entitlement Adjustments (MW.h/h)																	
60						Gross	Net	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Total					
61						(MW)	(MW)	0.744	0.720	0.744	0.720	0.744	0.744	0.672	0.744	0.720	0.744	0.720	0.744	8.760					
62		Number of hours in month / 1000																		(GWh)					
63																									
64	1	Lower Bonnington																							
65		1 Base			14.2	14.2		13.5	13.0	10.6	10.8	12.1	13.6	13.6	9.7	13.5	12.9	12.0	12.8	108.0					
66		1 UG			16.3	16.3		15.5	15.0	12.6	12.7	14.1	15.7	15.6	11.5	15.5	14.8	13.8	14.7	125.1					

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
67			1 Base 1 UG			30.5	30.5	29.1	28.7	26.3	26.2	27.8	29.3	29.4	25.1	29.1	27.6	25.9	27.5	242.3			
68			2 UG			32.6	32.6	31.1	30.7	28.3	28.2	29.8	31.3	31.5	27.1	31.2	29.5	27.7	29.4	259.6			
69			Full Project			46.8	46.8	44.6	44.4	42.0	41.9	43.5	45.0	45.3	40.8	44.8	42.4	39.7	42.2	377.0			
70																							
71			2 Upper Bonnington																				
72			1 Small			5.8	4.3	4.2	0.9	0.6	1.1	0.7	3.0	1.0	0.8	3.7	4.1	4.0	4.1	20.7			
73			2 Small			11.6	10.1	9.9	2.6	2.0	2.8	2.3	8.2	3.1	2.1	9.1	9.7	9.5	9.7	52.0			
74			1 Large (Base)			18.7	17.2	16.8	6.7	4.8	5.7	5.4	15.2	7.4	4.3	15.8	16.5	16.2	16.5	96.1			
75			1 UG			22.6	21.1	20.6	9.6	6.8	7.8	7.8	19.0	10.8	5.8	19.5	20.2	19.9	20.2	122.9			
76			1 Small 1 Large (Base)			24.5	23.0	22.5	11.2	7.9	9.0	9.2	20.9	12.6	6.8	21.3	22.1	21.6	22.1	136.9			
77			1 Small 1 UG			28.4	26.9	26.3	14.7	10.6	11.8	12.4	24.7	16.3	9.1	25.1	25.8	25.3	25.8	166.5			
78			1 Large (Base) 1 UG			41.3	39.8	38.9	27.3	22.0	23.2	24.6	37.3	29.1	19.8	37.7	38.2	37.5	38.2	273.0			
79			Full Project			64.5	63.0	61.5	50.0	44.7	45.7	47.3	60.0	52.0	42.5	60.4	60.5	59.3	60.4	470.5			
80																							
81			3 South Slocan																				
82			1 Base			18.6	16.1	15.2	12.6	9.2	9.6	10.9	15.2	13.7	7.9	15.0	14.7	14.1	14.7	111.5			
83			1 UG			19.2	16.7	15.8	13.2	9.7	10.1	11.4	15.8	14.2	8.3	15.6	15.3	14.6	15.2	116.1			
84			2 Base			37.2	34.7	32.8	30.3	26.4	26.5	28.4	32.9	31.5	24.5	32.6	31.8	30.3	31.7	262.5			
85			1 Base 1 UG			37.8	35.3	33.4	30.8	27.0	27.1	29.0	33.4	32.0	25.0	33.2	32.3	30.9	32.2	267.3			
86			Full Project			56.4	53.9	51.0	48.5	44.6	44.7	46.6	51.1	49.8	42.7	50.8	49.3	47.1	49.2	419.9			
87																							
88			4 Corra Linn																				
89			Existing unit			17.4	17.4	14.1	11.0	8.1	8.5	9.5	14.5	10.9		11.5	10.6	9.7	11.1	91.7			
90			2 existing units			34.8	34.8	28.3	26.2	23.1	23.5	24.8	28.9	24.3	18.2	23.3	21.2	19.4	22.3	207.0			
91			Full Project			52.2	52.2	42.4	41.4	38.6	39.1	40.3	43.4	37.6	31.1	35.1	31.8	29.2	33.4	323.6			
92																							
93	Table 10 (cont'd) Section 2 - Entitlement Adjustments for the Brilliant Facilities																						
94																							
95				Maximum	MW																		
96				Generation	Stranded																		
97				Capacity	by Water																		
98				(Table 7)	Licence																		
99																							
100			5 Brilliant Facilities																				
101																							
102			Brilliant Facilities	272.0	0.0			Entitlement Capacity from Table 9 (MW)															
103			Brilliant Plant (BRD)	149.1	0.0			257.5	198.1	180.7	175.4	234.0	175.8	231.6	210.5	226.0	263.2	260.6	264.9	223.2			
104			- Base Brilliant Unreg					141.6	145.0	145.2	149.5	149.3	149.1	149.3	149.3	143.6	131.6	124.8	131.6	142.5			
105			- Brilliant Upgrade Unreg Incr					121.5	125.4	125.5	129.4	129.3	129.3	129.4	129.4	123.6	111.8	105.3	111.9	122.6			
106			- Brilliant Upgrade Reg Incr					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
107			Brilliant Expansion (BRX) Incr					20.1	19.6	19.7	20.1	20.0	19.8	19.9	19.9	20.0	19.8	19.5	19.7	19.8			
108								115.9	63.1	47.5	35.9	94.7	36.7	92.3	71.2	92.4	131.6	135.8	133.3	87.6			
109			5A Brilliant Plant - If BRX is in service (less than 50% derated)					Entitlement Capacity Adjustments (MW)															
110			Capacity Adjustment Rate					0.9430	0.5134	0.3865	0.2921	0.7705	0.2986	0.7510	0.5793	0.7518	0.8826	0.8370	0.8826	0.6573			
111			1 BRD Unit OOS			37.3	37.3	35.2	19.2	14.4	10.9	28.7	11.1	28.0	21.6	28.0	32.9	31.2	32.9	24.5			
112			2 BRD Units OOS			74.6	74.6	70.4	38.3	28.8	21.8	57.5	22.3	56.0	43.2	56.1	65.8	62.4	65.8	49.0			
113			3 BRD Units OOS			111.9	111.9	105.5	57.5	43.2	32.7	86.2	33.4	84.0	64.8	84.1	98.8	93.7	98.8	73.5			
114			4 BRD Units OOS			149.1	149.1	140.6	76.6	57.6	43.6	114.9	44.5	112.0	86.4	112.1	131.6	124.8	131.6	98.0			
115																							
116			5B Brilliant Plant - If BRX is out of service (more than 50% derated)																				
117			Capacity Adjustment Rate					0.9497	0.9725	0.9738	1.0027	1.0013	1.0000	1.0013	1.0013	0.9631	0.8826	0.8370	0.8826	0.9554			
118			1 BRD Unit			37.3	37.3	35.4	36.3	36.3	37.4	37.4	37.3	37.4	37.4	35.9	32.9	31.2	32.9	35.6			
119			2 BRD Units			74.6	74.6	70.8	72.5	72.6	74.8	74.7	74.6	74.7	74.7	71.8	65.8	62.4	65.8	71.3			
120			3 BRD Units			111.9	111.9	106.3	108.8	109.0	112.2	112.1	111.9	112.1	112.1	107.8	98.8	93.7	98.8	106.9			
121			4 BRD Units			149.1	149.1	141.6	145.0	145.2	149.5	149.3	149.1	149.3	149.3	143.6	131.6	124.8	131.6	142.5			
122																							
123			5C Brilliant Expansion - 1 Unit (Total Plant)																				
124			Capacity Adjustment Rate					0.9430	0.5134	0.3865	0.2921	0.7705	0.2986	0.7510	0.5793	0.7518	1.0708	1.1050	1.0846	0.7124			
125			1 BRX Unit (Total Plant)			122.9	122.9	115.9	63.1	47.5	35.9	94.7	36.7	92.3	71.2	92.4	131.6	135.8	133.3	87.6			
126																							
127																							
128																							
129			Number of hours in month / 1000																				
130								Gross	Net														
131								(MW)	(MW)														
132			Leap Year Factor =>					1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000			
133			5 Brilliant Facilities																				
134																							
135			Upgraded Brilliant Plant (BRD)					Entitlement Energy from Table 9 (MWh)															
136			- Base Brilliant Unreg		0.97756			99.876	68.572	65.500	76.277	78.932	91.993	71.614	65.867	93.556	93.384	85.722	93.438	984.731			
137			- Brilliant Upgrade Unreg Incr		0.98435			86.133	66.126	62.285	62.992	65.096	81.944	63.071	58.986	81.835	79.313	72.253	79.345	859.379			
138			- Brilliant Upgrade Reg Incr		0.97031			12.751	0.968	0.612	0.297	0.330	0.702	-0.642	-0.443	9.792	13.896	12.939	13.892	65.094			
139			Brilliant Expansion (BRX) Incr		0.86028			0.992	1.478	2.603	12.988	13.506	9.347	9.185	7.324	1.929	0.175	0.530	0.201	60.258			
								42.201	33.351	29.008	10.010	36.449	2.504	47.655	36.627	16.109	65.467	71.149	61.879	452.409			

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	
140																								
141		5A	Brilliant Plant - If BRX is in service (less than 50% derated)					Entitlement Energy Adjustments (MWh/h)																
142			1 BRD Unit OOS			37.29	37.29	12.1	0.9	1.5	0.0	2.2	0.0	12.1	0.0	2.7	26.0	29.3	22.9	80.021				
143			2 BRD Units OOS			74.57	74.57	32.2	3.9	3.9	0.7	7.7	0.0	29.0	1.8	10.8	53.7	59.2	48.4	183.037				
144			3 BRD Units OOS			111.86	111.86	58.2	14.5	9.8	3.7	24.3	1.3	49.5	17.2	27.0	82.6	89.2	76.7	330.950				
145			4 BRD Units OOS			149.14	149.14	88.1	38.5	24.1	16.9	52.0	24.1	75.5	39.9	51.6	113.0	119.2	107.3	547.288				
146																								
147		5B	Brilliant Plant - If BRX is out of service (more than 50% derated)																					
148			1 BRD Unit OOS			37.29	37.29	33.0	5.9	5.0	8.8	8.0	10.3	6.9	4.6	27.5	32.3	30.6	32.3	150.388				
149			2 BRD Units OOS			74.57	74.57	68.0	25.5	19.9	28.4	26.7	45.5	27.5	17.4	61.6	64.5	61.2	64.5	373.816				
150			3 BRD Units OOS			111.86	111.86	102.9	61.3	53.6	65.5	65.4	84.2	66.6	50.2	97.4	96.8	91.9	96.8	681.493				
151			4 BRD Units OOS			149.14	149.14	134.2	95.2	88.0	105.9	106.1	123.6	106.6	88.5	129.9	125.5	119.1	125.6	984.731				
152																								
153		5C	Brilliant Expansion - 1 Unit (Total Plant)			122.90	122.90	56.7	46.3	39.0	13.9	49.0	3.4	70.9	49.2	22.4	88.0	98.8	83.2	452.409				
154																								
155																								
156		Computation Details of Brilliant Plant Outages with BRX In Service																						
157																								
158				Gen Table	Inflows	KL Target	MW on Outage	Unfirmed Energy (GWh)																
159			Study B3R - Brilliant Facilities	5	R2	3	0.00	165.152	118.476	109.857	100.301	134.120	109.844	137.413	119.140	127.476	184.650	182.348	180.542	1669.320				
160			Study B3R 1 BRD Unit OOS	5	R2	3	37.29	154.716	117.722	108.570	100.282	132.255	109.839	128.035	119.138	125.190	162.131	157.802	160.708	1576.388				
161			Study B3R 2 BRD Units OOS	5	R2	3	74.57	137.319	115.183	106.476	99.729	127.488	109.825	114.937	117.612	118.448	138.251	132.763	138.725	1456.756				
162			Study B3R 3 BRD Units OOS	5	R2	3	111.86	114.788	106.356	101.424	97.230	113.085	108.709	99.066	104.263	104.906	113.238	107.687	114.214	1284.965				
163			Study B3R 4 BRD Units OOS	5	R2	3	149.14	88.956	86.248	89.056	86.117	89.123	89.001	78.989	84.654	84.249	86.925	82.618	87.734	1033.671				
164																								
165						Adj Factor	Firmed and LY Adj Energy (GWh)																	
166			Study B3R - Brilliant Facilities			0.86028	0.00	142.077	101.923	94.508	86.287	115.381	94.497	119.269	102.494	109.665	158.851	156.871	155.317	1437.140				
167			Study B3R 1 BRD Unit OOS			0.86028	37.29	133.099	101.274	93.401	86.271	113.776	94.492	111.130	102.492	107.698	139.478	135.754	138.254	1357.119				
168			Study B3R 2 BRD Units OOS			0.86028	74.57	118.133	99.090	91.599	85.795	109.675	94.480	99.761	101.180	101.899	118.935	114.214	119.342	1254.103				
169			Study B3R 3 BRD Units OOS			0.86028	111.86	98.750	91.496	87.253	83.645	97.285	93.520	85.985	89.695	90.248	97.416	92.641	98.256	1106.190				
170			Study B3R 4 BRD Units OOS			0.86028	149.14	76.527	74.197	76.613	74.085	76.670	76.566	68.559	72.826	72.478	74.780	71.075	75.476	889.852				
171																								
172		Computation Details of Brilliant Plant Outages with BRX Out of Service (OOS)																						
173																								
174				Gen Table	Inflows	KL Target	MW on Outage	Unfirmed Energy (GWh)																
175			Study B2U - Brilliant Plant	4	U	1	0.00	103.898	70.155	65.752	64.227	66.400	83.920	62.793	59.375	96.121	98.000	89.655	98.025	958.323				
176			Study B2U 1 Unit OOS	4	U	1	37.29	79.026	66.170	62.647	61.075	63.787	78.485	60.420	57.715	76.357	73.490	67.233	73.509	819.913				
177			Study B2U 2 Units OOS	4	U	1	74.57	52.677	52.142	51.913	49.987	52.977	54.033	48.735	49.866	51.738	48.987	44.816	48.999	606.869				
178			Study B2U 3 Units OOS	4	U	1	111.86	26.321	26.107	26.955	25.951	26.999	26.998	24.398	26.823	25.852	24.477	22.393	24.483	307.758				
179																								
180						Adj Factor	Firmed and LY Adj Energy (GWh)																	
181			Study B2U - Brilliant Plant [A]			0.97756	0.00	101.567	68.581	64.277	62.786	64.910	82.037	61.932	58.043	93.964	95.801	87.644	95.825	937.367				
182			Study B2U 1 Unit OOS			0.97756	37.29	77.252	64.685	61.242	59.704	62.355	76.724	59.592	56.420	74.644	71.841	65.724	71.859	802.042				
183			Study B2U 2 Units OOS			0.97756	74.57	51.495	50.972	50.748	48.865	51.788	52.821	48.066	48.747	50.577	47.888	43.810	47.900	593.677				
184			Study B2U 3 Units OOS			0.97756	111.86	25.730	25.522	26.350	25.369	26.394	26.393	24.064	26.221	25.271	23.928	21.890	23.934	301.066				
185																								
186						BD Factor	Firmed Energy and LY Adj (GWh) - Note: As done in the 2005 CPA Table 10, to avoid conflicts with negative numbers, the Regulated Increment has been split out in a linear fashion																	
187			Brilliant Upgrade Reg Incr [B]:			0.97031	0.00	0.992	1.478	2.603	12.988	13.506	9.347	9.185	7.324	1.929	0.175	0.530	0.201	60.258				
188			1 Unit OOS				[B] - [B]*(1/4)	0.744	1.109	1.952	9.741	10.130	7.010	6.889	5.493	1.447	0.131	0.398	0.151	45.195				
189			2 Units OOS				[B] - [B]*(2/4)	0.496	0.739	1.302	6.494	6.753	4.674	4.593	3.662	0.965	0.088	0.265	0.101	30.132				
190			3 Units OOS				[B] - [B]*(3/4)	0.248	0.370	0.651	3.247	3.377	2.337	2.296	1.831	0.482	0.044	0.133	0.050	15.066				
191																								
192			Brilliant Plant [C]:				Firmed and LY Adj Energy (GWh)																	
193			[A] + [B]			0.00		102.559	70.059	66.880	75.774	78.416	91.384	71.117	65.367	95.893	95.976	88.174	96.026	997.625				
194			1 Unit OOS				37.29	77.996	65.794	63.194	69.445	72.485	83.734	66.481	61.913	76.091	71.972	66.122	72.010	847.237				
195			2 Units OOS				74.57	51.991	51.711	52.050	55.359	58.541	57.495	52.659	52.409	51.542	47.976	44.075	48.0					

216	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
217			Brilliant Plant Regulated Outage Factors (MWh/h)																				
218			Brilliant Upgrade Reg Increment																				
219			1 Unit OOS				37.29	0.3	0.5	0.9	4.5	4.5	3.1	3.4	2.5	0.7	0.1	0.2	0.1	15.063			
220			2 Units OOS				74.57	0.7	1.0	1.7	9.0	9.1	6.3	6.8	4.9	1.3	0.1	0.4	0.1	30.126			
221			3 Units OOS				111.86	1.0	1.5	2.6	13.5	13.6	9.4	10.3	7.4	2.0	0.2	0.6	0.2	45.192			
222			4 Units OOS				149.14	1.3	2.1	3.5	18.0	18.2	12.6	13.7	9.8	2.7	0.2	0.7	0.3	60.258			
223			BRX In Service																				
224																							
225			Brilliant Plant Outage Factors - BRX In Service (MWh/h)				MW on Outage	MWh/h															
226			1 Unit OOS				37.29	12.1	0.9	1.5	0.0	2.2	0.0	12.1	0.0	2.7	26.0	29.3	22.9	80.021			
227			2 Units OOS				74.57	32.2	3.9	3.9	0.7	7.7	0.0	29.0	1.8	10.8	53.7	59.2	48.4	183.037			
228			3 Units OOS				111.86	58.2	14.5	9.8	3.7	24.3	1.3	49.5	17.2	27.0	82.6	89.2	76.7	330.950			
229			4 Units OOS				149.14	88.1	38.5	24.1	16.9	52.0	24.1	75.5	39.9	51.6	113.0	119.2	107.3	547.288			
230																							
231			Brilliant Plant Credit to Brilliant Expansion (MWh/h) - (to keep Brilliant Plant whole to original outage factors)																				
232			1 Unit OOS				37.29	20.9	5.0	3.5	8.8	5.8	10.3	-5.2	4.6	24.8	6.2	1.3	9.3	70.367			
233			2 Units OOS				74.57	35.8	21.5	16.0	27.7	19.0	45.5	-1.6	15.7	50.8	10.9	2.0	16.2	190.779			
234			3 Units OOS				111.86	44.7	46.9	43.8	61.8	41.1	82.9	17.1	33.0	70.4	14.2	2.7	20.1	350.543			
235			4 Units OOS				149.14	46.1	56.7	64.0	89.0	54.1	99.5	31.1	48.7	78.3	12.5	-0.1	18.3	437.443			
236																							
237																							
238			Table 10(cont'd) Section 3 - Entitlement Adjustments for the Waneta Facilities (Pre and Post WAX Startup)																				
239	6		Waneta Plant Entitlement Capacity Adjustments (Pre WAX Start-up) - MW																				
240			Waneta Plant (Pre-WAX Startup)*	493.20	0															Average			
241			Capacity Entitlement				493.2	493.2	493.2	493.2	493.1	493.2	493.2	493.1	491.1	478.5	476.0	490.5	490.1				
242			Capacity Adjustment Rate				1.0000	1.0000	1.0000	1.0000	0.9998	1.0000	1.0000	0.9998	0.9957	0.9702	0.9651	0.9945	0.9938				
243			1 UG			123.30	123.30	123.3	123.3	123.3	123.3	123.3	123.3	123.3	122.8	119.6	119.0	122.6	122.5				
244			2 UG			246.60	246.60	246.6	246.6	246.6	246.6	246.6	246.6	246.6	245.6	239.3	238.0	245.3	245.1				
245			3 UG			369.90	369.90	369.9	369.9	369.9	369.9	369.8	369.9	369.9	368.3	358.9	357.0	367.9	367.6				
246			Full Project			493.20	493.20	493.2	493.2	493.2	493.2	493.1	493.2	493.1	491.1	478.5	476.0	490.5	490.1				
247			Waneta Facilities Entitlement Capacity Adjustments - (Post WAX Start-up) - MW																				
248				Approx Nameplate Ratings per unit																			
249				WAN	WAX	WF total																	
250				123.30	165.35	823.93																	
251																							
252							Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul		(MW)			
253			From Table 9	Waneta Facility Capacity Entitlement (MW)			816.7	823.9	823.9	823.9	823.9	823.9	823.5	823.9	824.0	813.9	760.8	755.7	811.4				
254				Attributable to WAX ==>			327.2	327.6	328.0	327.7	328.1	327.7	327.7	328.1	330.4	328.8	298.1	293.0	322.7				
255				Attributable to Waneta (before nomination)==>			489.5	496.3	495.9	496.2	495.8	496.2	495.8	495.8	493.6	485.1	462.7	462.7	488.8				
256			From Table 7 (currently set to 823.93)	Maximum Generation Capacity (MW)			823.93																
257				Linear Capacity Adjustment Rate			0.9912	1.0000	1.0000	0.9999	1.0000	1.0000	0.9995	1.0000	1.0000	0.9879	0.9234	0.9171	0.9848				
258			Waneta Plant Outages Only*	MW on Outage																			
259			1 upgraded unit			123.30	123.30	122.2	123.3	123.3	123.3	123.3	123.2	123.3	123.3	121.8	113.9	113.1	121.4				
260			2 upgraded units			246.60	246.60	244.4	246.6	246.6	246.6	246.6	246.6	246.6	246.6	243.6	227.7	226.2	242.9				
261			3 upgraded units			369.90	369.90	366.6	369.9	369.9	369.9	369.9	369.9	369.9	369.9	365.4	341.6	339.3	364.3				
262			4 upgraded units			493.20	493.20	488.9	493.2	493.2	493.2	493.2	493.2	492.9	493.2	493.2	487.2	455.4	452.3	485.7			
263			Waneta Expansion Outages Only																				
264			1 unit			165.4	165.4	163.9	165.3	165.3	165.3	165.4	165.3	165.3	165.4	163.3	152.7	151.7	162.8				
265			2 units			330.7	330.7	327.2	327.6	328.0	327.7	328.1	327.7	327.7	328.1	330.4	326.7	298.1	293.0	322.5			
266			Combination Outages																				
267			1 WAX, 1 Waneta			288.7	288.7	286.1	288.6	288.6	288.6	288.7	288.6	288.5	288.6	288.7	285.2	266.5	264.7	284.3			
268			2 WAX, 1 Waneta			453.3	453.3	449.4	450.9	451.3	450.9	451.4	451.0	450.9	451.4	453.7	448.5	411.9	406.0	443.9			
269			2 Waneta, 1 WAX			411.6	411.6	408.3	411.9	411.9	411.9	412.0	411.9	411.7	411.9	412.0	407.0	380.4	377.8	405.7			
270																							
271			* Note: For up to 22 days of planned maintenance at the Waneta Plant in Sept (or after WAX in-service-date in other months as Teck and BCH may agree) the MW on Outage used to compute Capacity Entitlement Adjustments, will be reduced by the capacity of one unit (123.3 MW), as documented in the COA between Teck and BCH																				
272			For example, the adjustment for a 1 unit outage will be zero, and the adjustment for a 2 unit outage will be computed as if the MW on Outage was only 123.3 MW (the capacity of one unit), etc.																				
273			Table 10 Section 3(cont'd) - Energy Entitlement Adjustments for the Waneta Facilities																				
274																							
275			Pre-WAX Startup																				
276			Waneta Plant				(MWh/h)													(GWh)			
277			1 upgraded unit				123.30	123.30	3.8	0.6	17.3	3.5											

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W		
290			2 Waneta Units	246.6				201.962	180.188	273.033	221.698	261.036	226.684	191.561	269.838	342.344	403.871	373.735	335.733	3281.682					
291			1 WAX, 1 WAN unit	288.3				201.962	180.188	271.685	221.698	258.820	226.332	191.561	268.244	329.653	376.664	349.333	322.902	3199.042					
292			2 WAX units	330.0				201.962	180.188	269.365	221.454	255.150	225.727	191.369	265.818	314.929	349.198	324.657	308.766	3108.583					
293			3 Waneta Units	369.9				201.868	180.188	265.882	220.893	250.385	224.995	190.131	261.941	297.495	322.784	300.673	292.215	3009.450					
294			1 WAX, 2 WAN	411.6				200.642	180.188	261.045	220.064	243.736	222.903	187.603	255.116	276.275	294.358	275.411	271.948	2889.289					
295			2 WAX units, 1 WAN unit	453.3				197.609	179.193	252.848	217.007	234.309	218.133	183.281	244.104	253.153	265.145	249.916	249.496	2744.194					
296			4 Waneta Units	493.2				190.371	176.985	236.439	210.076	223.163	210.422	176.161	228.371	228.694	236.976	224.656	226.416	2568.730					
297																									
298			Summary of computed energy adjustments (GWh/month)																						
299			1 Waneta Unit	123.3				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	8.712	50.177	50.602	10.242	119.733					
300			1 WAX Unit	165.0				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.503	15.344	72.394	72.706	15.896	176.843					
301			2 Waneta Units	246.6				0.000	0.000	0.399	0.000	0.000	0.000	0.000	1.617	34.653	121.402	116.737	33.489	308.297					
302			1 WAX, 1 WAN unit	288.3				0.000	0.000	1.659	0.000	2.070	0.329	0.000	3.106	46.506	146.813	139.528	45.473	385.484					
303			2 WAX units	330.0				0.000	0.000	3.826	0.228	5.498	0.894	0.179	5.371	60.258	172.466	162.576	58.676	469.972					
304			3 Waneta Units	369.9				0.088	0.000	7.079	0.752	9.948	1.578	1.336	8.993	76.541	197.137	184.977	74.135	562.564					
305			1 WAX, 2 WAN	411.6				1.233	0.000	11.597	1.526	16.158	3.531	3.697	15.367	96.361	223.687	208.572	93.064	674.793					
306			2 WAX units, 1 WAN unit	453.3				4.064	0.929	19.249	4.380	24.959	7.984	7.731	25.647	117.946	250.959	232.373	114.024	810.245					
307			4 Waneta Units	493.2				10.821	2.990	34.566	10.850	35.363	15.182	14.378	40.333	140.777	277.253	255.952	135.568	974.033					
308																									
309			Summary of computed energy adjustments (MWh/hour)					Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Average					
310			1 Waneta Unit	123.3				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	12.100	67.442	70.281	13.766	13.668					
311			1 WAX Unit	165.0				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.676	21.311	97.304	100.981	21.366	20.188					
312			2 Waneta Units	246.6				0.000	0.000	0.536	0.000	0.000	0.000	0.000	2.173	48.129	163.175	162.135	45.012	35.194					
313			1 WAX, 1 WAN unit	288.3				0.000	0.000	2.230	0.000	2.782	0.442	0.000	4.175	64.592	197.329	193.789	61.120	44.005					
314			2 WAX units	330.0				0.000	0.000	5.142	0.317	7.390	1.202	0.264	7.219	83.692	231.809	225.800	78.866	53.650					
315			3 Waneta Units	369.9				0.118	0.000	9.515	1.044	13.371	2.121	1.971	12.087	106.307	264.969	256.913	99.644	64.218					
316			1 WAX, 2 WAN	411.6				1.657	0.000	15.587	2.119	21.718	4.746	5.453	20.655	133.835	300.655	289.683	125.086	77.027					
317			2 WAX units, 1 WAN unit	453.3				5.462	1.290	25.872	6.083	33.547	10.731	11.403	34.472	163.814	337.310	322.740	153.258	92.486					
318			4 Waneta Units	493.2				14.544	4.153	46.460	15.069	47.531	20.406	21.206	54.211	195.524	372.652	355.489	182.215	111.176					
319																									
320			Table 10 Section 3(cont'd) - Energy Entitlement Adjustments for the Waneta Facilities (Post WAX Startup)																						
321			Detailed computation of the Post WAX Startup Outage Factor -- (applicable to 100% of Waneta Facility, No Reduction for Teck Participation Percentage) Applicable through Dec 31, 2035																						
322							Average Monthly Energy from CPA Model (GWh)															Total			
323				Base Data	823.93	0.00	WA	201.962	180.188	273.461	221.698	261.036	226.684	191.561	271.569	380.697	541.818	506.552	373.210	3630.436					
324						3.92	WB	201.962	180.188	273.461	221.698	261.036	226.684	191.561	271.569	380.626	539.976	504.838	372.801	3626.400					
325						96.21	WC	201.962	180.188	273.461	221.698	261.036	226.684	191.561	271.569	373.160	494.069	459.602	363.496	3518.486					
326						419.93	WD	200.281	180.131	259.822	219.798	242.050	222.020	186.969	253.143	271.963	288.598	270.383	267.608	2862.765					
327							Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul							
328							Average Monthly Energy from CPA Model (GWh)																		
329					823.93	0.00	WA	201.962	180.188	273.461	221.698	261.036	226.684	191.561	271.569	380.697	541.818	506.552	373.210	3630.436					
330			One Waneta unit OOS			3.92	WB	201.962	180.188	273.461	221.698	261.036	226.684	191.561	271.569	380.626	539.976	504.838	372.801	3626.400					
331			[Three sement summation			96.21	WC	201.962	180.188	273.461	221.698	261.036	226.684	191.561	271.569	373.160	494.069	459.602	363.496	3518.486					
332			Since MW on Outage is > 96.21 MW]			419.93	WD	200.281	180.131	259.822	219.798	242.050	222.020	186.969	253.143	271.963	288.598	270.383	267.608	2862.765					
333					700.63	→ 123.30	WE	201.962	180.188	273.461	221.698	261.036	226.684	191.561	271.569	370.117	480.129	444.543	360.623	3483.571					
334						0.75670	WB-WA	0.000																	

363	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	
364					823.93	0.00	WA	Average Monthly Energy from CPA Model (GWh)													(GWh)			
365			One WAX, One WAN unit OOS			3.92	WB	201.962	180.188	273.461	221.698	261.036	226.684	191.561	271.569	380.626	539.976	504.838	372.801	3626.400				
366			[Three sement summation			96.21	WC	201.962	180.188	273.461	221.698	261.036	226.684	191.561	271.569	373.160	494.069	459.602	363.496	3518.486				
367			Since MW on Outage is > 96.21 MW]			419.93	WD	200.281	180.131	259.822	219.798	242.050	222.020	186.969	253.143	271.963	288.598	270.383	267.608	2862.765				
368					535.63	288.30	WE	201.962	180.188	271.685	221.698	258.820	226.332	191.561	268.244	329.653	376.664	349.333	322.902	3199.042				
369						0.75670	WA-WB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.071	-1.842	-1.714	-0.409	-4.036				
370						0.77903	WB-WC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-7.466	-45.907	-45.236	-9.305	-107.914				
371						0.93400	WC-WE	0.000	0.000	-1.776	0.000	-2.216	-0.352	0.000	-3.325	-43.507	-117.405	-110.269	-40.594	-319.444				
372			Energy Outage Adjustment					0.000	0.000	-1.659	0.000	-2.070	-0.329	0.000	-3.106	-46.506	-146.813	-139.528	-45.473	-385.484				
373								Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Total				
374								Average Monthly Energy from CPA Model (GWh)													(GWh)			
375					823.93	0.00	WA	201.962	180.188	273.461	221.698	261.036	226.684	191.561	271.569	380.697	541.818	506.552	373.210	3630.436				
376			Two WAX units OOS			3.92	WB	201.962	180.188	273.461	221.698	261.036	226.684	191.561	271.569	380.626	539.976	504.838	372.801	3626.400				
377			[Three sement summation			96.21	WC	201.962	180.188	273.461	221.698	261.036	226.684	191.561	271.569	373.160	494.069	459.602	363.496	3518.486				
378			Since MW on Outage is > 96.21 MW]			419.93	WD	200.281	180.131	259.822	219.798	242.050	222.020	186.969	253.143	271.963	288.598	270.383	267.608	2862.765				
379					493.93	330.00	WE	201.962	180.188	269.365	221.454	255.150	225.727	191.369	265.818	314.929	349.198	324.657	308.766	3108.583				
380						0.75670	WA-WB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.071	-1.842	-1.714	-0.409	-4.036				
381						0.77903	WB-WC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-7.466	-45.907	-45.236	-9.305	-107.914				
382						0.93400	WC-WE	0.000	0.000	-4.096	-0.244	-5.886	-0.957	-0.192	-5.751	-58.231	-144.871	-134.945	-54.730	-409.903				
383			Energy Outage Adjustment					0.000	0.000	-3.826	-0.228	-5.498	-0.894	-0.179	-5.371	-60.258	-172.466	-162.576	-58.676	-469.972				
384								Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Total				
385								Average Monthly Energy from CPA Model (GWh)													(GWh)			
386					823.93	0.00	WA	201.962	180.188	273.461	221.698	261.036	226.684	191.561	271.569	380.697	541.818	506.552	373.210	3630.436				
387			Three Waneta units OOS			3.92	WB	201.962	180.188	273.461	221.698	261.036	226.684	191.561	271.569	380.626	539.976	504.838	372.801	3626.400				
388			[Three sement summation			96.21	WC	201.962	180.188	273.461	221.698	261.036	226.684	191.561	271.569	373.160	494.069	459.602	363.496	3518.486				
389			Since MW on Outage is > 96.21 MW]			419.93	WD	200.281	180.131	259.822	219.798	242.050	222.020	186.969	253.143	271.963	288.598	270.383	267.608	2862.765				
390					454.03	369.90	WE	201.868	180.188	265.882	220.893	250.385	224.995	190.131	261.941	297.495	322.784	300.673	292.215	3009.450				
391						0.75670	WA-WB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.071	-1.842	-1.714	-0.409	-4.036				
392						0.77903	WB-WC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-7.466	-45.907	-45.236	-9.305	-107.914				
393						0.93400	WC-WE	-0.094	0.000	-7.579	-0.805	-10.651	-1.689	-1.430	-9.628	-75.665	-171.285	-158.929	-71.281	-509.036				
394			Energy Outage Adjustment					-0.088	0.000	-7.079	-0.752	-9.948	-1.578	-1.336	-8.993	-76.541	-197.137	-184.977	-74.135	-562.564				
395	Table 10 Section 3(cont'd) - Entitlement Adjustments for the Waneta Facilities (Post WAX Startup)																							
396	Detailed computation of the Post WAX Startup Outage Factor -- (applicable to 100% of Waneta Facility, No Reduction for Teck Participation Percentage) Applicable through Dec 31, 2035																							
397								Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Total				
398								Average Monthly Energy from CPA Model (GWh)													(GWh)			
399			One WAX, Two WAN units OOS		823.93	0.00	WA	201.962	180.188	273.461	221.698	261.036	226.684	191.561	271.569	380.697	541.818	506.552	373.210	3630.436				
400			[Three sement summation			3.92	WB	201.962	180.188	273.461	221.698	261.036	226.684	191.561	271.569	380.626	539.976	504.838	372.801	3626.400				
401			Since MW on Outage is > 96.21 MW]			96.21	WC	201.962	180.188	273.461	221.698	261.036	226.684	191.561	271.569	373.160	494.069	459.602	363.496	3518.486				
402						419.93	WD	200.281	180.131	259.822	219.798	242.050	222.020	186.969	253.143	271.963	288.598	270.383	267.608	2862.765				
403					412.33	411.60	WE	200.642	180.188	261.045	220.064	243.736	222.903	187.603	255.116	276.275	294.358	275.411	271.948	2889.289				
404						0.75670	WA-WB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.071	-1.842	-1.714	-0.409	-4.036				
405						0.77903	WB-WC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-7.466	-45.907	-45.236	-9.305	-107.914				
406						0.93400	WC-WE	-1.320	0.000	-12.416	-1.634	-17.300	-3.781	-3.958	-16.453	-96.885	-199.711	-184.191	-91.548	-629.197				
407			Energy Outage Adjustment					-1.233	0.000	-11.597	-1.526	-16.158	-3.531	-3.697	-15.367	-96.361	-223.687	-208.572	-93.064	-674.793				
408								Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Total				
409																								

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	
435						3.92	WB	201.962	180.188	273.461	221.698	261.036	226.684	191.561	271.569	380.626	539.976	504.838	372.801	3626.400				
436						96.21	WC	201.962	180.188	273.461	221.698	261.036	226.684	191.561	271.569	373.160	494.069	459.602	363.496	3518.486				
437						419.93	WD	200.281	180.131	259.822	219.798	242.050	222.020	186.969	253.143	271.963	288.598	270.383	267.608	2862.765				
438			419.93 MW OOS		404.00	419.93	WE	200.279	180.131	259.817	219.797	242.043	222.016	186.966	253.135	271.947	288.577	270.365	267.592	2862.665				
439			This section looks at the results if a			0.75670	WA-WB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.071	-1.842	-1.714	-0.409	-4.036				
440			"boundary value" is input as WE ... no			0.77903	WB-WE	-1.683	-0.057	-13.644	-1.901	-18.993	-4.668	-4.595	-18.434	-108.679	-251.399	-234.473	-105.209	-763.735				
441			problems were encountered.			0.75670	WA-WB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.071	-1.842	-1.714	-0.409	-4.036				
442			This section also provides the fully			0.77903	WB-WC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-7.466	-45.907	-45.236	-9.305	-107.914				
443			generalized calculation that can be applied			0.93400	WC-WE	-1.683	-0.057	-13.644	-1.901	-18.993	-4.668	-4.595	-18.434	-101.213	-205.492	-189.237	-95.904	-655.821				
444			regardless of which segment WE is located.			0.75670	WA-WB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.071	-1.842	-1.714	-0.409	-4.036				
445			This section is not directly used, but is retained			0.77903	WB-WC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-7.466	-45.907	-45.236	-9.305	-107.914				
446			in case additional WE runs are needed in the future.			0.93400	WC-WD	-1.681	-0.057	-13.639	-1.900	-18.986	-4.664	-4.592	-18.426	-101.197	-205.471	-189.219	-95.888	-655.721				
447						0.93345	WD-WE	-0.002	0.000	-0.005	-0.001	-0.007	-0.004	-0.003	-0.008	-0.016	-0.021	-0.018	-0.016	-0.100				
448																								
449			One segment only	0.00	Section 5.3(e) (1)			-1.274	-0.043	-10.324	-1.438	-14.372	-3.532	-3.477	-13.949	-82.291	-191.627	-178.723	-79.921	-580.971				
450			Two Segment summation	0.00	Section 5.3(e) (2)			-1.311	-0.044	-10.629	-1.481	-14.796	-3.637	-3.580	-14.361	-84.718	-197.241	-183.958	-82.270	-598.026				
451			Three segment summation	1.00	(3)			-1.572	-0.053	-12.743	-1.776	-17.739	-4.360	-4.292	-17.217	-100.403	-229.086	-213.285	-97.133	-699.659				
452			Four segment summation?	0.00	(4)			-1.572	-0.053	-12.743	-1.776	-17.739	-4.360	-4.292	-17.217	-100.403	-229.086	-213.285	-97.133	-699.659				
453				Okay	Applicable Range	Energy Adjustment (GWh/month)																		
454			Energy Outage Adjustment		820.01	823.93		-1.572	-0.053	-12.743	-1.776	-17.739	-4.360	-4.292	-17.217	-100.403	-229.086	-213.285	-97.133	-699.659				
455					727.72	820.01																		
456					404.00	727.72																		
457	Table 10 (cont'd) Section 4 - Allocation of Waneta Facility Entitlement Adjustments to Project Owners																							
458	Allocations depend on the units on outage and the outage type - see WRCA for details, Additional adjustments for Teck Participation Percentage Apply after Jan 1, 2036																							
459			Allocation of Outages between WAX and Waneta and other adjustments post Jan 1, 2036										Example 1 - Summary of Results											
460													WAN	WAX	Total									
461			Outage State: One WAX, One Waneta										Example 1A	208.6	176.8	385.5								
462			Example 1A										Example 1B	119.7	265.8	385.5								
463			WAX	Planned Outage									Example 1C	119.7	265.8	385.5								
464			Waneta	Forced Outage									Example 1D	272.7	289.3	562.0								
465																								
466			WRCA ==>																					
467			WAX unit has priority because outage is planned, not forced																					
468								Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Annual				
469			Waneta Facility 100% adjustment for 1 WAX, 1 WAN(from above)					0.000	0.000	1.659	0.000	2.070	0.329	0.000	3.106	46.506	146.813	139.528	45.473	385.484				
470			Allocate 1 WAX outage to WAX					0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.503	15.344	72.394	72.706	15.896	176.843	WAX	Ex 1A		
471			Allocate residual of 1 WAX, 1 Wan vs 1 WAX to WAN					0.000	0.000	1.659	0.000	2.070	0.329	0.000	2.603	31.162	74.419	66.822	29.577	208.641	WAN			
472			-----																					
473			Waneta	Planned Outage																				
474			WAX	Forced Outage																				
475																								
476			WRCA ==>																					
477			Waneta unit has priority because outage is planned, not forced																					
478																								
479			Waneta Facility 100% adjustment for 1 WAX, 1 WAN(from above)					0.000	0.000	1.659	0.000	2.070	0.329	0.000	3.106	46.506	146.813	139.528	45.473	385.484				
480			Allocate 1 WAN outage to WAN					0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	8.712	50.177	50.602	10.242	119.733	WAN	Ex 1B		
481			Allocate residual of 1 WAX, 1 Wan vs 1 WAN to WAX					0.000	0.000	1.659	0.000	2.070	0.329	0.000	3.106	37.794	96.636	88.926	35.231	265.751	WAX			
482			-----																					
483			Waneta	Planned Outage																				
484			WAX	Planned Outage																				
485			WRCA ==>																					
486			Waneta Facility 100% adjustment for 1 WAX, 1 WAN(from above)					0.000	0.000	1.659	0.000	2.070	0.329	0.000	3.106	46.506	146.813	139.528	45.473	385.484				
487			WAN unit has priority as both outages are planned					0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	8.712	50.177	50.602	10.242	119.733	WAN	Ex 1C		
488			Allocate residual to WAX					0.000	0.000	1.659	0.000	2.070	0.329	0.000	3.106	37.794	96.636	88.926	35.231	265.751	WAX			
489			-----																					
490			Outage State: One WAX, Two Waneta (Pe-2036)										Example 2 - Summary of Results											
491			Example 2A										WAN	WAX	WF									
492			Example 2A										Example 2A	409.0	265.8	674.8								
493			Waneta	1 unit planned, 1 unit forced									Example 2B	357.1	317.7	674.8								
494			WAX	1 unit planned outage									Example 2C	498.0	176.8	674.8								
495													Example 2D	272.7	265.8	538.4	Note lower allocation to WF post 2036, compared to pre-2036 as in Example 2A							
496			WRCA ==>																					
497			WAX unit & 1 WAN unit have equal priority because both are planned outages																					
498			WAN unit on forced outage has last priority because it is a forced outage																					
499								Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Annual				
500			Waneta Facility 100% adjustment (from above)					1.233	0.000	11.597	1.526	16.158	3.531	3.697	15.367	96.361	223.687	208.572	93.064	674.793				
501			Allocate planned outages (1 WAX, 1 WAN) to WAN, WAX giving priority to WAN					0.000	0.000	1.659	0.000	2.070	0.329	0.000	3.106	46.506	146.813	139.528	45.473	385.484				
502			Allocate 1 WAN to WAN					0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	8.712	50.177	50.602	10.242	119.733	WAN			
503			Allocate residual of 1 WAX, 1 WAN vs 1 WAN to WAX					0.000	0.000	1.659	0.000	2.070	0.329	0.000	3.106	37.794	96.636	88.926	35.231	265.751	WAX			
504			Allocate residual of 1 WAX, 2 Wan vs 1 WAX, 1WAN to WAN					1.233	0.000	9.938	1.526	14.088	3.202	3.697	12.261	49.855	76.874	69.044	47.591	289.309				
505			sub-total to WAN					1.233	0.000	9.938	1.526	14.088	3.202	3.697	12.261	58.567	1							

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
509																							
510			WRCA ==>																				
511			WAN unit on planned outage has priority																				
512			2 units (1 WAX, 1 WAN) on forced outage have equal (second) priority																				
513						Waneta Facility 100% adjustment (from above)			1.233	0.000	11.597	1.526	16.158	3.531	3.697	15.367	96.361	223.687	208.572	93.064	674.793		
514						Allocate first priority WAN outage to WAN			0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	8.712	50.177	50.602	10.242	119.733		Ex 2B
515						Allocate residual of 1 WAX, 2 Wan vs 1 WAN to WAX & WAN prorata			1.233	0.000	11.597	1.526	16.158	3.531	3.697	15.367	87.649	173.510	157.970	82.822	555.060		
516						123.30	42.77%	to WAN	0.527	0.000	4.960	0.653	6.910	1.510	1.581	6.572	37.486	74.207	67.561	35.421			
517						165.00	57.23%	to WAX	0.706	0.000	6.637	0.873	9.248	2.021	2.116	8.795	50.163	99.303	90.409	47.401	317.672	WAX	
518						288.30		sub-total to WAN	0.527	0.000	4.960	0.653	6.910	1.510	1.581	6.572	46.198	124.384	118.163	45.663	357.121	WAN	
519																							
520			Example 2C	Outage State: One WAX, Two Waneta (Pe-2036)																			
521			Waneta	2 units forced outage																			
522			WAX	1 unit planned outage																			
523			WRCA ==>																				
524			WAX unit has priority, outage is planned																				
525			Waneta units have equal (second) priority																				
526						Waneta Facility 100% adjustment (from above)			1.233	0.000	11.597	1.526	16.158	3.531	3.697	15.367	96.361	223.687	208.572	93.064	674.793		
527						Allocate 1 WAX outage to WAX			0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.503	15.344	72.394	72.706	15.896	176.843		Ex 2C
528						Allocate residual of 1 WAX, 2 Wan vs 1 WAX to WAN prorata			1.233	0.000	11.597	1.526	16.158	3.531	3.697	14.864	81.017	151.293	135.866	77.168			
529						123.30	50.00%	to WAN	0.617	0.000	5.799	0.763	8.079	1.766	1.849	7.432	40.509	75.647	67.933	38.584	420.782		
530						123.30	50.00%	to WAN	0.617	0.000	5.799	0.763	8.079	1.766	1.849	7.432	40.509	75.647	67.933	38.584	210.391		
531						246.60		sub-total to WAN	1.233	0.000	11.597	1.526	16.158	3.531	3.697	14.864	81.017	151.293	135.866	77.168	497.950	WAN	
532																							
533			Outage State: One WAX, Two Waneta (Post-2036)																				
534			Example 2D (Post 2036)																				
535			Waneta	1 planned, 1 forced																			
536			WAX	1 unit planned outage																			
537			WRCA ==>																				
538			1 WAX, 1 WAN on planned outage have equal first priority, allocate first to WAN																				
539			1 WAN on forced outage has second priority																				
540						Waneta Facility 100% adjustment (from above)			1.233	0.000	11.597	1.526	16.158	3.531	3.697	15.367	96.361	223.687	208.572	93.064	674.793		
541						1 WAX, 1 WAN (from above)			0.000	0.000	1.659	0.000	2.070	0.329	0.000	3.106	46.506	146.813	139.528	45.473	385.484		
542						Allocate 1 WAN to WAN			0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	8.712	50.177	50.602	10.242	119.733		
543						Residual 1 WAX 1 WAN vs 1 WAN to WAX			0.000	0.000	1.659	0.000	2.070	0.329	0.000	3.106	37.794	96.636	88.926	35.231	265.751		
544						Residual 1 WAX 2 WAN vs 1 WAX 1 WAN to WAN			1.233	0.000	9.938	1.526	14.088	3.202	3.697	12.261	49.855	76.874	69.044	47.591	289.309	WAX	
545						sub-total to WAN			1.233	0.000	9.938	1.526	14.088	3.202	3.697	12.261	58.567	127.051	119.646	57.833	409.042		
546																							
547			Additional adjustments post 2036																				
548			Adjustment to WAN allocation for Teck Participation Percentage			0.66667			0.822	0.000	6.625	1.017	9.392	2.135	2.465	8.174	39.045	84.701	79.764	38.555	272.695	WAN	
549			Allocation to WAX (no change)						0.000	0.000	1.659	0.000	2.070	0.329	0.000	3.106	37.794	96.636	88.926	35.231	265.751	WAX	
550			Revised Waneta Facility adjustment (post 2036)						0.8	0.0	8.3	1.0	11.5	2.5	2.5	11.3	76.8	181.3	168.7	73.8	538.446	WF	
551																							

Table 10a

Energy Entitlement Adjustments: FortisBC Planned Outages (MW.h/h)															
		Net MW on Outage													
		MW	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Total
	Number of hours in month / 1000		0.744	0.720	0.744	0.720	0.744	0.744	0.672	0.744	0.720	0.744	0.720	0.744	8.760
															(GWh/a)
1	Lower Bonnington														
	1 Base	13.5	1.8	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	10.4	12.6	6.9	23.6
	1 UG	17.2	2.2	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.1	12.0	14.5	8.0	27.4
	1 Base 1 UG	27.0	11.8	8.2	8.3	8.2	9.1	8.2	8.3	8.2	8.5	24.5	27.6	19.3	109.9
	2 UG	30.7	13.8	10.3	10.3	10.2	11.1	10.2	10.3	10.2	10.5	26.6	29.6	21.3	127.6
	Full Project [Short term outage]		27.7	24.0	24.0	23.9	24.9	23.9	24.2	23.9	24.4	40.3	43.0	35.1	247.9
2	Upper Bonnington														
	1 Small	4.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	3.9	1.7	5.9
	2 Small	10.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	9.1	4.0	14.1
	1 Large (Base)	17.3	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.4	15.6	6.9	24.9
	1 UG	19.3	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.2	19.2	8.6	31.1
	1 Small 1 Large (Base)	23.1	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.7	20.9	9.5	34.2
	1 Small 1 UG	25.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.6	24.5	11.3	40.7
	1 Large (Base) 1 UG	38.1	4.2	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.1	27.3	36.3	18.0	63.3
	Full Project [Short term outage]		23.7	18.6	18.9	18.6	19.0	18.6	20.3	18.6	18.9	49.2	58.7	38.9	235.4
3	South Slocan														
	1 Base	15.3	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.3	14.2	7.1	25.1
	1 UG	15.8	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.8	14.8	7.4	26.2
	2 Base	33.1	8.5	4.3	4.5	4.3	4.7	4.3	6.2	4.3	4.6	26.1	31.0	18.6	88.8
	1 Base 1 UG	33.6	9.1	4.9	5.1	4.9	5.3	4.9	6.7	4.9	5.2	26.6	31.5	19.2	93.9
	Full Project [Short term outage]		26.7	22.5	22.7	22.5	22.9	22.5	24.5	22.5	22.8	44.2	49.0	36.8	248.1
4	Corra Linn														
	Existing unit	17.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	11.0	5.8	19.9
	2 existing units	34.8	6.7	3.7	4.0	3.8	4.1	3.8	4.9	3.9	4.2	19.8	22.3	14.7	70.2
	Full Project [Short term outage]		20.9	18.9	19.5	19.3	19.4	19.1	18.4	16.9	16.6	32.8	34.2	29.0	193.7
If any of these entries are greater than the corresponding adjustments presented in Table 10, the Table 10 adjustments are to be used.															

Data and Program Flow Chart

Table 11

Legend:

- Entitlement Calculation Program
- Fixed Data (no provision to vary throughout agreement), except by agreement
- Input data that may change as a result of changes to upstream operation
- Input data that may change as a result of upgrades, expansions, re-evaluation, etc.
- Input data that may change only as a result of changes to legal obligations (eg. IJC, licences, WECC, etc.)

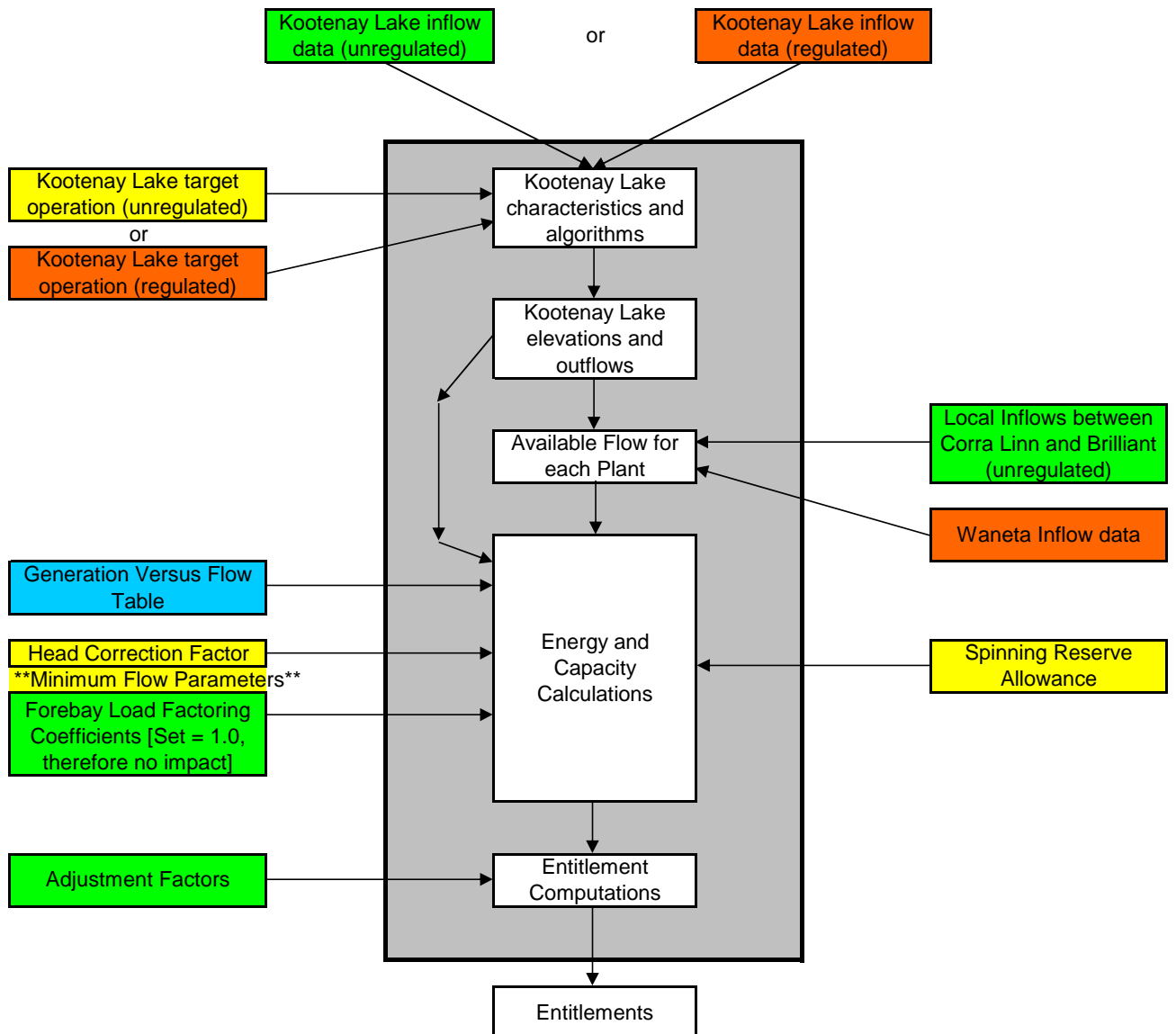


Table 16**PLANT CHARACTERISTICS, LEGAL OBLIGATIONS APPLICABLE TO SEVEN MILE**

The following summarizes the Seven Mile pre-WAX water licence provisions (Baseline W.L. Provisions) and the assumed future water licence provisions (Assumed post-WAX Start-up W.L. Provisions), including the Order under the Water Act dated December 18, 2006. If there is any inconsistency between the Baseline W.L. Provisions and the terms of the applicable pre-WAX water licences, the terms of the licences will prevail.

Baseline W.L. Provisions with Waneta Discharge Capability = 32,900 cfs (932 m³/s)

Legal Obligation	Effective Period	Requirement
Maximum WL Generation Discharge	Instantaneous	1472.5 m ³ /s
SEV Release Restriction	Sept 1 – May 31	Reasonable efforts to distribute flows from SEV to minimize the amount of discharge that exceeds 932 m ³ /s in event of unexpected changes in inflow, unforecasted high Salmo River discharges or a need to respond to system demand through SEV generation
	Sept 1- May 31 When daily average inflow ³ is less than 932 m ³ /s	Reasonable efforts to distribute SEV discharge such that total instantaneous discharge at Waneta does not exceed 932 m ³ /s
	Sept 1- May 31 When daily average inflow is equal to or greater than 932 m ³ /s	Reasonable efforts to distribute SEV discharge such that total instantaneous discharge at Waneta does not exceed the daily average inflow
SEV Release Restriction	June 1 – Aug 31	Best efforts to minimize the amount of total discharge at Waneta that exceeds 932 m ³ /s
	June 1 – Aug 31 When daily average inflow is less than 932 m ³ /s	Best efforts to distribute SEV discharge such that total instantaneous discharge at Waneta does not exceed 932 m ³ /s
	June 1 – Aug 31 When daily average inflow is equal to or greater than 932 m ³ /s	Best efforts to distribute SEV discharge such that total instantaneous discharge at Waneta does not exceed the daily average inflow
Maximum permissible Rate of reservoir rise or drawdown ⁴		6.0m per day 1.2m per hour

³ Daily Average Inflow is an estimate based on the previous day's inflow, which is used to plan operations for the next day.

Legal Obligation	Effective Period	Requirement
Summer Recreation Reservoir Drawdown restriction ⁴	June 1 – August 31	No more than 10days in the period of reservoir fluctuations exceeding 4.0m and hourly fluctuations exceeding 0.6m

Assumed post-WAX Start-up W.L. Provisions with Waneta Facility Discharge Capability = 54,350 cfs (1540 m³/s)

As long as the total licenced Waneta Facility Discharge Capability is in excess of the Seven Mile discharge capability of 52 kcfs (1472.5 m³/s), it is assumed that Seven Mile would have no obligation to re-regulate river flows to provide any particular inflow into the Waneta forebay. When the total licenced Waneta Facility Discharge Capability exceeds the Seven Mile discharge capability, changes in Seven Mile turbine releases will not decrease spill downstream at the Waneta Facility, so “Waneta Spill Reduction” restrictions to Seven Mile generation volumes should not be required. This assumed change in restrictions is recognized in the table below by revising the water flow requirement in the Legal Obligation table from 932 m³/s, to the combined water licence release of Waneta and WAX. This is currently expected to be 1540 m³/s.

Legal Obligation	Effective Period	Requirement
Maximum WL Generation Discharge	Instantaneous	1472.5 m ³ /s
SEV Release Restriction	Sept 1 – May 31	Reasonable efforts to distribute flows from SEV to minimize the amount of discharge that exceeds 1540 m ³ /s in event of unexpected changes in inflow, unforecasted high Salmo River discharges or a need to respond to system demand through SEV generation
	Sept 1- May 31 When daily average inflow is less than 1540 m ³ /s	Reasonable efforts to distribute SEV discharge such that total instantaneous discharge at Waneta Facility does not exceed 1540 m ³ /s
	Sept 1- May 31 When daily average inflow is equal to or greater than 1540 m ³ /s	Reasonable efforts to distribute SEV discharge such that total instantaneous discharge at Waneta Facility does not exceed the daily average inflow
SEV Release Restriction	June 1 – Aug 31	Best efforts to minimize the amount of total discharge at Waneta Facility that exceeds 1540 m ³ /s
	June 1 – Aug 31 When daily average inflow is less than 1540 m ³ /s	Best efforts to distribute SEV discharge such that total instantaneous discharge at Waneta Facility does not exceed 1540 m ³ /s
	June 1 – Aug 31 When daily average	Best efforts to distribute SEV discharge such that total instantaneous discharge at Waneta Facility

⁴ In case of conflict between discharge requirement and limitation on reservoir rise/drawdown, the discharge requirement takes precedence.

Legal Obligation	Effective Period	Requirement
	inflow is equal to or greater than 1540 m ³ /s	does not exceed the daily average inflow
Maximum permissible Rate of reservoir rise or drawdown		6.0m per day 1.2m per hour
Summer Recreation Reservoir Drawdown restriction	June 1 – August 31	No more than 10days in the period of reservoir fluctuations exceeding 4.0m and hourly fluctuations exceeding 0.6m

PLANT CHARACTERISTICS APPLICABLE TO SEVEN MILE

Operation	Effective Period	Requirement
Normal Generation Ranges	Annual	Units 1-3 120.0 to 190.0 MW Unit 4 140.0 to 220.0 MW
Restricted Generation	Annual	No restrictions.
Normal maximum generation up and down ramp rates	Annual	Ramp up and down: Units 1-3 21.3 MW/minute Unit 4 85.2 MW/minute
Normal Forebay Operating Range		514.8 m to 527.3 m.
Tailwater Levels		461.0m to 464.0m Normal 457.8 m Minimum level (no SEV release and draft WAN forebay)

Seven Mile Generation							
(Based on CRO July 2012)							
Waneta FB	Forebay El.	Flow	Generation	Waneta FB	Forebay El.	Flow	Generation
(m)	(m)	(m³/s)	(MW)	(m)	(m)	(m³/s)	(MW)
457	516	240	118.9	459	516	240	118.2
		800	378.8			800	378.2
		1000	468.7			1000	468.3
		1200	557.3			1200	556.8
		1320	608.8			1320	608.3
	520	230	123.2		520	230	122.4
		800	409.2			800	408.6
		1000	506.5			1000	506.0
		1200	601.8			1200	601.3
		1370	678.8			1370	678.3
	525	220	125.8		525	220	125.6
		800	444.5			800	444.0
		1000	551.4			1000	551.0
		1200	655.6			1200	655.2
		1430	767.4			1430	767.0
	528	210	125.9		528	210	125.1
		800	466.7			800	466.0
		1000	578.8			1000	578.4
		1200	688.2			1200	687.8
		1450	814.7			1450	814.1
Waneta FB	Forebay El.	Flow	Generation	Waneta FB	Forebay El.	Flow	Generation
(m)	(m)	(m³/s)	(MW)	(m)	(m)	(m³/s)	(MW)
461	516	240	115.8	463	516	240	111.9
		800	374.6			800	367.6
		1000	464.7			1000	457.2
		1200	553.4			1200	545.6
		1320	604.8			1320	596.9
	520	230	120.7		520	230	117.0
		800	404.5			800	397.0
		1000	502.0			1000	494.1
		1200	597.8			1200	589.8
		1370	674.8			1370	666.7
	525	220	123.8		525	220	121.3
		800	440.3			800	433.4
		1000	547.3			1000	540.1
		1200	652.0			1200	645.0
		1430	763.8			1430	756.4
	528	210	123.5		528	210	120.7
		800	462.3			800	455.0
		1000	574.6			1000	566.9
		1200	684.4			1200	677.1
		1450	810.5			1450	802.6

SCHEDULE B

KOOTENAY INTERCONNECTION

The interconnections at:

- (a) Kootenay Canal Plant as follows:
 - (1) the point where the B.C. Hydro-owned 63 kV Line 60L225 interconnects with the 69kV Line 13 at the first structure outside South Slocan Substation fence (60L225 – Line 13 interconnection);
 - (2) the point where the B.C. Hydro-owned 63 kV Line 60L227 interconnects with the FortisBC-owned 69kV Line 12 at the first structure outside Kootenay Canal Plant G.S. switchyard fence (60L227 – Line 12 interconnection); and
 - (3) the point where the B.C. Hydro-owned 230 kV Line 2L288 interconnects with the FortisBC-owned 230kV Line 79 at the first structure outside Kootenay Canal Plant G.S. switchyard fence (2L288 – Line 79 interconnection).
- (b) the point where the transmission line owned by Arrow Lakes Power Corporation (Line 2L289) interconnects with the B.C. Hydro-owned Selkirk substation;
- (c) the point where the Teck-owned 230 kV Line 71 (referred to by B.C. Hydro as Line 2L277) from the Waneta Plant enters into the B.C. Hydro-owned Nelway substation; and since B.C. Hydro has authority from Teck to configure the path of Line 71 at the Nelway substation, such point at the Nelway substation is part of the Kootenay Interconnection regardless of how Line 71 is configured; and
- (d) the point where the 230 kV transmission line to be built by WELP interconnects with the B.C. Hydro-owned Selkirk substation.

FORTISBC ENTITLEMENT ADJUSTMENT AGREEMENT

THIS AGREEMENT, made effective the 1st day of June, 2004,

BETWEEN:

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

("BC Hydro")

AND:

FORTISBC INC.

("FortisBC")

WITNESSES THAT WHEREAS:

- A. BC Hydro, Teck Cominco Metals Ltd. and FortisBC entered into an agreement made as of August 1, 1972 (the "Original Canal Plant Agreement"), which provides FortisBC with entitlements to capacity and energy of the "Basic Supply" as that term is defined in Part D of the Original Canal Plant Agreement;
- B. Parts D and E of the Original Canal Plant Agreement cease to be in effect on September 30, 2005, and the parties to the Original Canal Plant Agreement are currently negotiating a revised Canal Plant Agreement (the "CPA") which, when it becomes effective, will amend and restate the Original Canal Plant Agreement, including all technical decisions and operating procedures thereunder, in its entirety;
- C. BC Hydro and FortisBC acknowledge that, pursuant to the Original Canal Plant Agreement, FortisBC may receive revised entitlements if the efficiency of the Units at the Powerplants is changed as a result of changes to the assumptions included in the entitlement calculations;
- D. FortisBC is considering life extension of, and possibly upgrading a number of, the Units at certain of the Powerplants, and as part of such life extension and upgrade program has undertaken tests to measure the efficiency of its existing Units at the Powerplants;
- E. The parties have had differences as to how the data derived from the tests referred to in Recital D (the "Efficiency Curve Data") will be utilized under the Original Canal Plant Agreement and, when it comes into effect, the CPA;
- F. In February 2004, FortisBC filed with the British Columbia Utilities Commission (the "BCUC") an application for a Certificate of Public Convenience and Necessity (CPCN) for the Lower Bonnington Unit 1 Upgrade and Life Extension Project (the "LBO Unit 1 Project") and BC Hydro has expressed concern about the appropriate flow data used to optimise the design of such project; and
- G. The parties wish to set out the terms of their agreement:
 - (i) as to the method which they will use to compute, (a) revised FortisBC entitlements under the Original Canal Plant Agreement, and when it comes into effect the CPA, for the existing Units at the Powerplants and for any life extensions or replacements (excluding replacement of Upper Bonnington Units 1-4) thereof, and (b) revised FortisBC entitlements under the Original Canal Plant Agreement, and when it comes into effect the

CPA, resulting from efficiency improvements attributable to Upgrades at the Powerplants, and

(ii) as to the design of proposed Units.

NOW, THEREFORE, in consideration of the mutual covenants herein and other good and valuable consideration, the parties agree as follows:

Part 1 – Interpretation

1.1 Definitions: In this Agreement, including the Recitals and the Schedule:

“Capacity Incentive” means an entitlement capacity increment equal to

$$\frac{20MW}{15GW.h} \text{ (26 } GW.h \text{ - LBO Unit 1 Project annual energy entitlement increment)}$$

but no greater than 20 MW and not less than zero;

“CPA” means the agreement described in Recital B, as amended and supplemented;

“CPA Model” means the entitlement calculation program used as of 16 December 2004 for studies related to the negotiation of the CPA or, when it comes into effect, the calculation model set out in Section 5, Schedule A of the CPA;

“Efficiency Curve Data” has the meaning ascribed to it in Recital E;

“Expected Actual Streamflows” means BC Hydro’s best estimate of streamflows expected to be available to the Kootenay River powerplants;

“Kootenay Interconnection” has the meaning ascribed to it in Technical Decision No. 19 under the Original Canal Plant Agreement until the CPA comes into effect or, when it comes into effect, as defined under the CPA;

“LBO Unit 1 Project” has the meaning ascribed to it in Recital F;

“Original Canal Plant Agreement” means the agreement described in Recital A, as amended and supplemented up to the date hereof;

“Powerplants” means, collectively, FortisBC’s Corra Linn, Upper Bonnington, Lower Bonnington and South Slokan dams located on the Kootenay River and their respective related hydroelectric facilities, including Upgrades thereto from time to time;

“Senior Executive” of a party means the Chair, the President, any Vice-President or any other officer of the party equivalent to any of the foregoing;

“Technical Committee” means the committee established under Section 3.1;

“Unit” means machinery and equipment making up a complete and independent hydro-electric generator including water passages, turbine, exciter, generator and generator output transformer and replacements thereof; and

“Upgrade” of a Powerplant means any capital project that results in an increase in the capacity or energy generation of the Powerplant by means of efficiency improvement, but not by means of the use of water in addition to that licenced as of the date of this Agreement to be diverted at the Powerplant.

- 1.2 **Plural and singular:** In this Agreement, the singular includes a reference to the plural, and vice versa, unless the context requires otherwise.
- 1.3 **Section and Schedule references:** Reference to a particular numbered Section or Schedule is a reference to the correspondingly numbered Section or Schedule of this Agreement.
- 1.4 **Parties:** Unless the context otherwise indicates, reference to a "party" or the "parties" is a reference to a party, or the parties, to this Agreement and their respective permitted assigns, successors, subcontractors, trustees, administrators and receivers.
- 1.5 **Headings:** The headings appearing in this Agreement have been inserted for ease of reference and as a matter of convenience only and in no way define, limit or enlarge the scope of any provision of this Agreement.
- 1.6 **Invalid provisions:** If any provision of this Agreement is declared or found to be invalid, illegal or unenforceable, in whole or in part, it will not be severable from this Agreement but the parties will work together in good faith to amend the provisions of this Agreement so that it will be valid, legal and enforceable.
- 1.7 **Applicable law:** This Agreement will be construed in accordance with the laws of the Province of British Columbia.
- 1.8 **Meaning of "support":** The term "support", as used in Sections 2.8, 2.9, 2.10 and 2.11 of this Agreement means to cooperate with and offer formal public support, whether in the context of regulatory proceedings or otherwise, for the relevant application, but does not mean that the applicable party is obliged to do anything that could reasonably be expected to prejudice its own rights or interests.

Part 2 - Agreements

- 2.1 **Capacity Incentive for LBO Unit 1 Project Design:** As an incentive to FortisBC to design the LBO Unit 1 Project for actual flows, BC Hydro agrees to provide to FortisBC a Capacity Incentive, in addition to the entitlement increase for FortisBC attributable to the as-built LBO Unit 1 Project, in each and every year once the LBO Unit 1 Project is in service, during the period from the first day of November to the last day of the succeeding February. If the in-service date of the LBO Unit 1 Project is between the first day of November and the last day of the succeeding February, then BC Hydro agrees to begin providing the Capacity Incentive as soon as practicable once the LBO Unit 1 Project is in-service.
- 2.2 **LBO Unit 1 Project Turbine Design:** FortisBC agrees to design the LBO Unit 1 Project and, specifically, the LBO Unit 1 Project turbine, based on the Expected Actual Streamflows and to cooperate with BC Hydro on such design, provided that the resulting design makes full use of FortisBC's water licence at the Lower Bonnington plant. It is acknowledged by the parties that the provisions of this Section 2.2 may result in a design that is less than optimal for the Expected Actual Streamflows.
- 2.3 **Base Entitlement Recomputation for Determination of Energy Adjustment Factor:** Beginning June 1, 2004, the FortisBC entitlements for the Powerplants will be recomputed by: (a) incorporating into the CPA Model the Efficiency Curve Data for all of the FortisBC Units (excluding the Upgrades for Lower Bonnington Unit 2, South Slokan Unit 2 and Upper Bonnington Unit 5), and (b) modifying the energy adjustment factor to yield a total annual energy entitlement of 1521 GW.h for the Powerplants. Such modified energy adjustment factor is 1.00349 and will be the energy adjustment factor for determining FortisBC entitlement energy under the Original Canal Plant Agreement or the CPA, as the case may be, commencing June 1, 2004.

- 2.4 Base Entitlement Capacity Adjustment:** It is the intent of the parties that there will be no change to the FortisBC base annual average entitlement capacity under the Original Canal Plant Agreement or the CPA, as the case may be, due to the recomputation described in Section 2.3(a) above. To achieve this outcome, upon execution of this Agreement or such other date as the parties may agree, BC Hydro will apply the appropriate capacity adjustment factor to the recomputation described in Section 2.3(a) above. Such capacity adjustment factor is 1.0401 and will be the capacity adjustment factor for determining FortisBC entitlement capacity under the Original Canal Plant Agreement or the CPA, as the case may be, commencing June 1, 2004.
- 2.5 Entitlement Adjustment for Recently Upgraded Units:** The FortisBC Units which have been recently upgraded are Lower Bonnington Unit 2, South Slocan Unit 2 and Upper Bonnington Unit 5. Beginning June 1, 2004, FortisBC entitlements will be computed by incorporating into the CPA Model the Efficiency Curve Data for all of the FortisBC Units (including the Upgrades for Lower Bonnington Unit 2, South Slocan Unit 2 and Upper Bonnington Unit 5) and by applying the new energy adjustment factor resulting from the recomputation described in Section 2.3 above and the new capacity adjustment factor described in Section 2.4 above. Retroactive delivery of entitlement energy and entitlement capacity to June 1, 2004 will be as mutually agreed between the parties.
- 2.6 Energy – Capacity Swap Option:** BC Hydro will provide to FortisBC a one-time opportunity, to be exercised by written notice from FortisBC to BC Hydro within 60 days of execution of this Agreement, to swap all, or a portion, of the net entitlement energy increase related to FortisBC's recently upgraded Units (i.e., the net entitlement energy increase resulting from Section 2.5 above) for additional November through February entitlement capacity increases. Such swap will be in the ratio of 3 GWh : 4 MW and the energy to be swapped will be taken from the incremental energy generated by the recently upgraded Units. Any additional entitlement capacity increase provided pursuant to this Section 2.6 will be in addition to the capacity entitlement increases related to FortisBC's recently upgraded Units contemplated in Section 2.5 above. If FortisBC exercises the energy-capacity swap option as described herein, then the Technical Committee will develop a technical procedure regarding the implementation of such energy-capacity swap.
- 2.7 Planned and Unplanned Outages:** BC Hydro agrees to modify the entitlement reductions resulting from the Powerplants' planned outages and planned deratings such that long-term expected average actual energy losses for these events will be applied to the FortisBC entitlement. Such actual energy losses are to be determined by applying the methodology described in Schedule A. Subject to the capacity waiver provision provided in Section 2.8 below, capacity losses due to planned outages and planned deratings will continue to be determined in accordance with the CPA Model.

Unplanned outages and unplanned deratings for the Powerplants will continue to attract standard entitlement reductions in accordance with the Original Canal Plant Agreement or the CPA, as the case may be.

For the purpose of this Section 2.7, outages and derates will be categorized as "planned" if such outages and derates are identified to BC Hydro at least 30 days in advance by FortisBC. All other outages and derates will be categorized as "unplanned". For greater certainty:

- (a) an unplanned outage or unplanned derate cannot be re-categorized as a planned outage or planned derate; and
- (b) a planned outage or planned derate cannot be re-categorized as an unplanned outage or unplanned derate;

unless and until the relevant Unit has first come back into normal operation and is on-line for at least 5 (five) consecutive days (the “5-Day Period”). Despite the foregoing paragraph (b), a planned outage or planned derate can be so re-categorized if, within the 5-Day Period, there occurs an unplanned outage or unplanned derate that is unrelated to the reason(s) for which the planned outage or planned derate was scheduled.

- 2.8 Future Upgrades and Life Extension Projects, Excluding Replacement of Upper Bonnington Units 1-4:** FortisBC is not obligated to undertake any Upgrades or life extensions to its Powerplants that are not, in FortisBC’s sole opinion, economic. For those Upgrades and life extensions that are undertaken, FortisBC agrees to design such projects based on Expected Actual Streamflows and to co-operate with BC Hydro on the design, provided that the resulting design makes full use of the water licence at each respective Powerplant. It is acknowledged by the parties that the provisions of this Section 2.8 may result in a design that is less than optimal for the Expected Actual Streamflows. Entitlement increases for FortisBC will be computed from the as-built project characteristics, and by applying the new energy adjustment factor resulting from the recomputation described in Section 2.3 above and the new capacity adjustment factor described in Section 2.4 above. BC Hydro will support any FortisBC CPCN application for these Upgrade and/or life extension projects that are designed in accordance with the terms of this Agreement.

If FortisBC implements a design based on Expected Actual Streamflows and the result is that the entitlement attributable to the Powerplants is to be reduced due to such design (excluding any reduction due to project characteristics not meeting design specifications), then BC Hydro agrees to augment its entitlement obligation to FortisBC by an amount equal to the entitlement reduction.

BC Hydro will waive capacity losses resulting from Upgrade and life extension (excluding replacement of Upper Bonnington Units 1-4) projects during the months of August through October (inclusive) and March through April (up to the date the International Joint Commission declares the start of the spring freshet) provided that BC Hydro will only waive capacity losses to the extent required by FortisBC to meet its domestic load requirements. The monthly settlement procedure between BC Hydro and FortisBC (currently called Wheeling, Entitlement, Purchase and Accounting System) will be used on an after-the-fact basis to determine if BC Hydro is required to waive capacity losses.

The provisions of this Section 2.8 do not apply to any new Unit constructed as a replacement for Upper Bonnington Units 1-4; but do apply to Upgrades or life-extensions of those Units. Upon execution of this Agreement, the parties agree to negotiate arrangements that will apply to any new Units constructed as a replacement for Upper Bonnington Units 1-4 and that will incorporate the general principles of this Agreement.

- 2.9 Water Licence Cooperation:** FortisBC agrees to seek authorization, and BC Hydro agrees to support any application related to such authorization, to use currently unlicensed turbine discharge capability, if any, at its South Slokan plant. Upon FortisBC receiving authorization for the use of all such unlicensed capability and FortisBC accepting such conditions as may be imposed for such water licence increases, the parties agree: (i) to increase the FortisBC energy entitlement by 2 GW.h for each of May and June and to increase the monthly capacity entitlement by 2 MW; and (ii) to exclude such changes to FortisBC’s water licences from FortisBC’s entitlement determinations.

FortisBC is not obligated to accept any conditions that may be imposed for such water licence increases unless BC Hydro provides to FortisBC an indemnity holding it harmless from any losses directly resulting from such conditions. This indemnity will be in addition to the entitlement increase noted above in this Section 2.9.

- 2.10 Grohman Narrows:** FortisBC agrees to support BC Hydro in its plans to implement the Grohman Narrow's dredging project. FortisBC further agrees that the impact of this project, if developed by BC Hydro, will be excluded from FortisBC's entitlement determinations. If this project is approved, BC Hydro will provide to FortisBC an indemnity holding it harmless from any losses resulting from impacts directly related to this project.
- 2.11 Load Factoring of Minimum Flows:** Subject to technical decisions or operating procedures developed under the Original Canal Plant or the CPA, as the case may be, on the allocation of expenses incurred for starting and stopping Units, FortisBC agrees to support BC Hydro in its efforts to seek approval to load factor the minimum flows. In this section 2.11, "minimum flows" means 5,000 cfs minimum flow in the Kootenay River downstream of Corra Linn dam required by the Kootenay Canal Plant water licence.

The parties agree to engage a third party, as mutually agreed to between the parties and the costs of which are to be shared 50-50, to undertake a comprehensive study, as defined by the parties, to identify any potential impacts to FortisBC from load factoring the minimum flows and to estimate the costs of any such impacts. If approval is obtained by BC Hydro to load factor the minimum flows, BC Hydro will provide to FortisBC an indemnity holding it harmless from any losses resulting from impacts directly related to load factoring the minimum flows.

Part 3 – Technical Committee

- 3.1 Establishment of Committee:** A Technical Committee will be established to administer the terms of this Agreement and will issue technical procedures for this Agreement. The parties' respective representatives for the Original Canal Plant Agreement or the CPA, as the case may be, will serve as the representatives for the Technical Committee to be established under this Agreement. Each representative will serve on the Technical Committee until notice has been given by the appointing party to the other party of his or her successor.
- 3.2 Chair of Technical Committee:** Responsibility for chairmanship of the Technical Committee will alternate between the parties annually.
- 3.3 Alternate Representatives:** Each party will give notice to the other party of an alternate representative for each of its representatives appointed under Section 3.1, who will serve on the Technical Committee during any inability or absence of such representative.
- 3.4 Meetings:** The Technical Committee will meet (in person or by telephone or video conference) as often as required to carry out its duties and responsibilities under this Agreement, and at least once each year, at a location and time to be determined by it, and will keep written records of its meetings and determinations. A quorum for a meeting of the Technical Committee will be one representative or alternate representative of each party. The Technical Committee will establish rules, procedures and terms of reference governing its own meetings and determinations.
- 3.5 Unanimity Required:** No technical procedure, decision or action of the Technical Committee will be effective unless it has been approved at a duly constituted meeting by the affirmative votes of all representatives present at the meeting.

Part 4 – Dispute Resolution

- 4.1 Referral to Senior Executives:** If the parties have a dispute arising out of or in connection with this Agreement, including the interpretation of any provision of this Agreement or the failure of the Technical Committee to make a determination on a matter required hereunder to be determined by it, the parties will first refer the dispute for resolution to their respective Senior Executives, and each party will promptly appoint one of its Senior Executives for this purpose.

- 4.2 **Referral to Arbitration:** If the Senior Executives appointed under Section 4.1 are unable to resolve the dispute within 30 days of its first reference to them or any party fails to appoint a Senior Executive for that purpose, then either of the parties may after the end of such 30-day period or upon failure of a party to promptly appoint a Senior Executive for that purpose, submit the dispute to arbitration by a single arbitrator knowledgeable in such matters under the *Commercial Arbitration Act* (British Columbia). The award of the arbitrator will be final and binding on the parties.
- 4.3 **Equitable Remedies:** The parties acknowledge that a declaratory judgment or damages may provide an inadequate remedy for breach of the provisions of this Agreement, and accordingly each party will be entitled to seek specific performance, injunction or other similar remedy to ensure full and proper performance by the other party of its obligations under this Agreement and such remedy may only be sought from the arbitrator appointed under Section 4.2.

Part 5 – General

- 5.1 **Consents and Waivers:** No consent or waiver, express or implied, by either party to or of any breach or default by the other party of any or all of its obligations under this Agreement will:
- (a) be valid unless it is in writing and stated to be a consent or waiver pursuant to this Section 5.1;
 - (b) be relied on as a consent to or waiver of any other breach or default of the same or any other obligation;
 - (c) constitute a general waiver under this Agreement; or
 - (d) eliminate or modify the need for a specific consent or waiver pursuant to this Section 5.1 in any other or subsequent instance.
- 5.2 **Enurement:** This Agreement will enure to the benefit of and be binding upon the parties and their respective successors and permitted assigns, as defined in the Original Canal Plant Agreement or the CPA, as the case may be.
- 5.3 **Further Assurances:** Each party will at its own expense, execute and deliver all such further agreements and documents and do such further acts and things as may be reasonably required to give effect to this Agreement.
- 5.4 **Notice:** Every notice, request, demand or direction required or permitted to be given under this Agreement must be made or given in accordance with the procedures developed by the Technical Committee or, if such procedures are not established, in accordance with the notice procedures applicable under the Original Canal Plant Agreement or the CPA, as the case may be.
- 5.5 **No Partnership:** Nothing herein nor any action taken pursuant hereto will be construed as creating a partnership, joint venture or other similar entity of any kind or as imposing upon either party any duty, obligation or liability as a partner or joint venturer.
- 5.6 **Entire Agreement:** As between BC Hydro and FortisBC, this Agreement supplements the Original Canal Plant Agreement and is to be read in conjunction with the Original Canal Plant Agreement and, when it comes into effect, the CPA. However, this Agreement embodies the entire understanding between the parties with regard to the matters dealt with herein, and no prior or contemporaneous understanding, oral or otherwise, exists between BC Hydro and FortisBC in relation to these matters.
- 5.7 **Amendments:** This Agreement may not be amended except by written agreement between the parties.

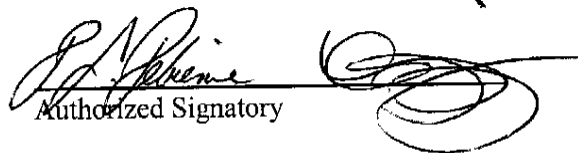
- 5.8 Duration of Agreement:** This Agreement shall have effect from the day and year first written above on page 1, and, except for Section 2.1, will continue in effect for so long as Part E of the Original Canal Plant Agreement, or the CPA, as the case may be, is in effect. Section 2.1 will continue in effect for the life of the Lower Bonnington Unit 1.
- 5.9 Counterpart Execution:** This Agreement may be executed in counterparts, each of which so executed will be deemed to be an original, and such counterparts together will constitute but one and the same.
- 5.10 Delivery by Electronic Means:** Deliver by a party of an executed copy of this Agreement by fax or e-mail will be effective delivery, but that party will promptly also deliver in person to the other party an originally executed copy of this Agreement.

IN WITNESS WHEREOF the parties hereto have executed this Agreement the 10th day of May 2005.

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

By: 
Authorized Signatory

FORTISBC INC.

By: 
Authorized Signatory

D.L. (Don) Debienne, P.Eng.
Vice President
Generation

Kelly Cairns
Vice President
Customer & Corporate Services

Schedule A

- The long-term expected average actual energy losses will be determined in accordance with the CPA Model with the exception that Expected Actual Streamflows will be used as Kootenay River flows rather than the Kootenay Lake outflows as calculated by the CPA Model.
- To effect the above, the CPA Model has been modified to include a switch that diverts all flows above 5,000 cfs, up to the capacity of the Kootenay Canal Plant, through the Kootenay Canal Plant and away from the Kootenay River plants (the “Kootenay Canal Plant Diversion Switch”). To obtain the Expected Actual Streamflows, the Kootenay Canal Plant Diversion Switch must be active and the regulated flow set must be used.
- BC Hydro potential dispatch of the Powerplants above 5,000 cfs outside of the freshet period is not considered in the determination of the long-term expected average actual energy losses.

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UNDERTAKING No. 3

WORKSHOP DATE: October 12, 2016

TRANSCRIPT

REFERENCE: Volume 1, Page 106, Line 12 to Page 110, Line 24

REQUESTOR: Ms. Worth (MoveUP)

QUESTION: Regarding call abandon rate, provide a modified table found in BCUC IR 1.19.1 which shows FBC CSRs and FEI CSRs doing FBC work for FTE and headcount figures for each of the years listed, if available.

RESPONSE:

Please refer to the table below which provides the average speed of answer (in seconds) for 2009 through August 31, 2016 year to date as referenced in FBC's response to BCUC IR 1.19.1. In addition, this table shows the average number of FTEs at the FBC contact centre in Trail, as well as a calculation of the number of FTEs that is representative of the amount of work completed by FEI on behalf of FBC.

	2009	2010	2011	2012	2013	2014	2015	2016 YTD
Average Speed of Answer	32.7	34.8	37.4	40.6	44	225.8	49.1	48.2
Avg # FTE (FBC)	24	24.9	22	24	29.3	32.8	35.3	33.8
Avg # FTE (FEI)	0	0	0	0	0	0	0.4	1.7

FBC notes that the average speed of answer cannot be directly correlated to the number of FTE on staff. Other important factors affecting the average speed of answer include when staff is scheduled and the actual arrival patterns of calls. In addition, the average wait time increasing does not indicate if customers are waiting longer at the low end of the average or at the high end of the average, or both.

The average speed of answer represents only an average and is not representative of the level of service the majority of customers are receiving. The TSF is a better representation of service levels as it describes the actual experience for the majority of customers (70% of calls in less than 30 seconds).

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The number of FTEs representative of the amount of work completed by FEI on behalf of FBC was calculated as follows:

$$\text{\$ Cross Charges} / \text{Approximate loaded labour rate (\$31.04)} = \text{Approximate \# FTE}$$

This resulting approximate number of FTEs represents only an estimate of average FTEs.

FBC notes that Ms. Worth also mentioned headcount in her undertaking request. The headcount figures provided in the Application represent the number of employees “at year end” and therefore are not representative of the activities or resources used throughout the year. Consequently, FBC has provided average FTEs in this response which more accurately responds to the concern that Ms. Worth was raising.

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UNDERTAKING No. 4

WORKSHOP DATE: October 12, 2016

REFERENCE: Exhibit C6-3, MoveUP Request for Additional Undertakings

REQUESTOR: MoveUP

QUESTION: In response to MoveUP IR 1.2.2.5, FBC indicated the basis upon which it calculated the per transaction cross-charge had changed from a monthly one to a per quarter one.

- a. Please provide an explanation as to why the utilities have decided to change the calculation of this cross-charge.
 - b. Please provide an alternate table showing what the cross-charges would have been had the calculation of the per transaction rate continued to be completed on a monthly basis.
-

RESPONSE:

FBC notes that MoveUP IR 1.2.2.5 is in the proceeding for the Annual Review for 2017 Rates for FortisBC Energy Inc. (FEI), and not FBC as stated. The similar response in the FBC proceeding is MoveUp IR 1.1.7.

FEI began to use a quarterly calculation in 2016, rather than a monthly calculation in order to remove the timing of labour and benefit costs as a factor in the calculation and improve ease of understanding. Costs are not recorded at the exact moment that the interaction is handled. The timing differences between handling the interaction and incurring the costs can cause variability in the cost per interaction each month. FEI has quarterly reconciliation processes that it undertakes that ensures that its quarterly accounting and reporting is more accurate than the monthly accounting and reporting. Using a quarterly calculation reduces the volatility introduced by the timing issue, ensuring the charges are easier to understand and more reflective of actual costs.

FBC has reproduced below the months in 2016 from the table included in the response to MoveUP IR 2.2.5 in FEI's proceeding (or MoveUP IR 1.1.7 in FBC's proceeding) to include the monthly cost per interaction calculations:

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UNDERTAKING No. 4

	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16
Volume	676	264	290	83	497	1,430	2,047	1,998
Cost Per Interaction (Quarterly)	\$ 6.32	\$ 6.32	\$ 6.32	\$ 8.27	\$ 8.27	\$ 8.27		
Cost Per Interaction (Monthly)	\$ 6.50	\$ 5.37	\$ 7.10	\$ 8.62	\$ 8.33	\$ 7.85		
Cross Charges (Quarterly)			\$ 7,776			\$ 16,630		
Cross Charges (Monthly)	\$ 4,394	\$ 1,417	\$ 2,059	\$ 715	\$ 4,140	\$ 11,226		

Actual charges June YTD using the quarterly method were \$24,406 while using the monthly method, the actual charges would have been \$23,951.

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UNDERTAKING No. 5

WORKSHOP DATE: October 12, 2016

REFERENCE: Exhibit C6-3, MoveUP Request for Additional Undertakings

REQUESTOR: MoveUP

QUESTION: Regarding Exhibit B-3, BCUC IR 6.1 (Page 18)

This IR response said that “data is extracted from the employees training records, validated by the manager and populated in a skills matrix showing the training due in the coming year.”

a. Is customer or FBC employees’ (or FEI’s Prince George CSR’s doing FBC work) input and feedback used to identify skills gaps to plan training as well?

RESPONSE:

Feedback and input from employees within the Customer Service department is used to develop job-related training that is not compliance related. However, the scope of the Training and Development Initiative for the Customer Service department was regarding compliance and mandatory training requirements. As such, the feedback and input of FBC employees (or FEI’s Prince George CSRs doing FBC work) was not within scope of the Training and Development Initiative.

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UNDERTAKING No. 6

WORKSHOP DATE: October 12, 2016

REFERENCE: Exhibit C6-3, MoveUP Request for Additional Undertakings

REQUESTOR: MoveUP

QUESTION: Regarding B-9, MoveUP IR 1.2 series

These IR's discussed the FBC Billing Analysts doing FEI work are in temporary positions that FBC intends to make permanent. IR 1.12.5 FBC stated a final determination on this had not yet been made.

- a. When does FBC expect to make that decision?
 - b. What considerations or conditions might cause FBC to decline to make these positions permanent?
-

RESPONSE:

FBC believes that the temporary positions in Trail have been successful in achieving a number of benefits for both customers and employees. The primary reason these positions have not been filled permanently is that they are subject to an outstanding union grievance. FBC had hoped to resolve the grievance before making permanent changes as the grievance seeks to restrict cross-utility work which could potentially impact incumbent employees in these roles.

However, the grievance has recently been referred to arbitration and a resolution is unlikely until at least mid-2017. Given the length of time before a resolution is expected, FBC believes that it is no longer in the best interest of employees or customers to wait for the grievance to be resolved. As such, FBC made the decision to fill the Billing Analyst positions permanently within the next two months.

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UNDERTAKING No. 6

WORKSHOP DATE: October 12, 2016

REFERENCE: Exhibit C6-3, MoveUP Request for Additional Undertakings

REQUESTOR: MoveUP

QUESTION: Please indicate FBC's understanding of the priorities assigned to FEI CSR deployment should both utilities experience simultaneous call system issues or call peaks?

RESPONSE:

Workforce planning in the contact centre is complex and how work is prioritized is based on a number of factors including the nature of the issue and the skill set of employees on shift. For example, if the FBC issue had potential customer or employee safety impacts, that issue would be prioritized first. If the FBC issue had only service level impacts, then FEI's employees would be prioritized to FEI calls first, all else being equal.