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June 17, 2019

Industrial Customers Group c/o #301 – 2298 McBain Avenue Vancouver, BC V6L 3B1

Attention: Mr. Robert Hobbs

Dear Mr. Hobbs:

Re: FortisBC Energy Inc. and FortisBC Inc. (collectively FortisBC)

Project No. 1598996

Application for Approval of a Multi-Year Rate Plan for 2020 through 2024 (Application)

Response to the Industrial Customers Group (ICG) Information Request (IR) No. 1

On March 11, 2019, FortisBC filed the Application referenced above. In accordance with the British Columbia Utilities Commission Order G-64-19 setting out the Regulatory Timetable for review of the Application, FortisBC respectfully submits the attached response to ICG IR No. 1.

If further information is required, please contact the undersigned.

Sincerely,

FORTISBC INC.

Original signed:

Doug Slater

Attachments

cc (email only): Commission Secretary Registered Parties



Response to Industrial Customers Group (ICG) Information Request (IR) No. 1

1.0 **Reference:** Exhibit B-1, p. A-5; 1 2 Application for Approval of a Multi-Year Performance Based 3 Ratemaking Plan for 2014 through 2018 proceeding, Exhibit B-15, 4 ICG IR 1.6; and, Exhibit B-1, p. B-26 5 "The starting point for determining the O&M per customer is the 2019 Base O&M, which 6 is the adjusted actual O&M expenditures for 2018 expressed over the average number 7 of customers in 2018, escalated by the approved formula inflation factors for 2019." 8 "PBR only requires a starting point for prices or revenues (depending on the form of the 9 cap). In some circumstances this starting point may not reflect current costs because of 10 the elapsed time between the cost of service application and the current base year. In 11 that case a revenue requirements application would be an important element of filing a 12 plan. Where the last cost of service review is fairly recent and still produces just and 13 reasonable rates (with or without discrete adjustments such as added rate base) there 14 would be no reason to require a complete cost of service proceeding and it would be 15 inefficient to do so." 16 "The BCUC Panel approved a Base O&M Expense based on 2013 Approved O&M, 17 subject to certain adjustments that resulted in minor overall changes to the proposed base values." 18 Please confirm that FortisBC continues to support the B&V opinion expressed in 19 1.1

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22 Response:

Confirmed, with the understanding that Black and Veatch was discussing one approach to
rebasing that was applicable to FortisBC's circumstances moving into the Current PBR Plans,
but not the only approach to rebasing. At the time of FortisBC's 2014-2018 PBR Applications,
FEI and FBC were under cost of service regimes and the topic being discussed by Black and
Veatch was in that context.

the above quote of B&V?

28 "Rebasing", which refers to the exercise of re-establishing the linkage between revenues and 29 costs, can be performed in various ways. One approach is to perform a full forward-test year 30 cost of service rebasing. Another more regulatory efficient and less costly approach, involves 31 the use of actual or projected costs (adjusted for inflation, anomalies and any other known 32 changes). FortisBC's proposed rebasing approach for O&M expenditures and capital 33 expenditures is based on the latter approach to rebasing and is intended to reduce the 34 regulatory burden while establishing the appropriate Base O&M and Growth capital (for FEI 35 only). FortisBC's approach of using its 2018 Actual amounts is reasonable as FEI and FBC 36 have an incentive under the Current PBR Plans to reduce their O&M, and the benchmarking 37 studies for both FEI and FBC provide further confidence that both FEI's and FBC's O&M are



1 operating efficiently. Other capital costs for both FEI and FBC are based on cost of service 2 forecasts and not based on formulas.

- 3 Please also refer to the response to CEC IR 1.2.1.
 - 1.2 Please comment on whether the materials filed in this proceeding are sufficient for the Commission to approve rates based on cost of service regulation, assuming the Commission decides to not approve the Proposed MRP?
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11 Response:

12 The materials on the record in this proceeding are not sufficient to approve rates on a cost of 13 service basis for 2020. FortisBC's Application is designed to put in place a multi-year 14 ratemaking plan, which includes relying on an index-based approach for the majority of O&M 15 and also the forecast of various flow-through items on an annual basis. FortisBC has also not 16 filed evidence to establish rates for 2020 using the Current PBR Plans. Similar to the proposed 17 MRPs, the Current PBR Plans require various items to be forecast annually through the annual 18 review process.

19

- 21 22 1.3 Please explain why a revenue requirements application was not considered to be 23 an important element of filing the Proposed MRP?
- 24 25 Response:
- 26 Please refer to the response to ICG IR 1.1.1.
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- 29
- Please comment on whether there is sufficient evidence on the record of this 30 1.4 31 proceeding for the Commission to establish either cost of service rates for a one 32 year test period or extend the 2014-2019 PBR Plan for a one year test period?
- 33 34 **Response:**
- 35 Please refer to the response to ICG IR 1.1.2.



FortisBC Energy Inc. (FEI) and FortisBC Inc. (FBC) (collectively FortisBC) Application for Approval of a Multi-Year Rate Plan for 2020 through 2024 (the Application)	Submission Date: June 17, 2019
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1.5 Please comment on whether FortisBC would support an application to incorporate the record of the 2014-2018 PBR Plan proceeding into the record of this proceeding.

8 **Response:**

9 FortisBC would not oppose such an application, but notes that the record of the 2014-2018 PBR

- 10 Plan proceeding was substantial and would complicate the evidentiary record in this proceeding
- 11 with the large volume of material. Therefore, to be fair to all the parties in this proceeding, if
- there is specific material that the ICG intends to reference or rely on from the 2014-2018 PBR
- 13 Plan proceeding, FortisBC would request that the ICG identify those specific pieces of evidence
- 14 on the record in this proceeding.



1 2.0 Reference: Exhibit B-1, p. B-24 and Exhibit B-1, p. B-30

"The Companies' evaluation indicates that despite some challenges related to capital
formulas, both FEI's and FBC's plans have resulted in considerable O&M expenditure
savings as well as average rate increases at or below the level of inflation for the
duration of the plans."

- 6 "Lastly, the success of the Current PBR Plans are highlighted by the level of rate 7 increase over the term of the plans."
- 8 2.1 Please file in table format the actual O&M expenditures, the average number of
 9 customers, and the comparable "Base O&M" for each year during the term of the
 10 Current PBR Plan?
- 11

12 **Response:**

13 In the tables below, FEI and FBC have provided the actual/projected total gross O&M 14 expenditures (including both formula and flow-through O&M items), the actual/projected 15 average number of customers, and the approved gross O&M expenditures (including both 16 formula and flow-through O&M items) for each year of the Current PBR Plans. Note the 2019 17 projected O&M amounts reflect \$2.0 million and \$0.5 million in formula O&M savings for FEI and 18 FBC, respectively, with no other variances assumed.

19 In Figures B2-1 and B2-2, the total actual O&M amount in the graph has been adjusted by 20 inflation to derive the total O&M per customer (inflation adjusted).

	Total Actual O&M		Total Approved O&M
FEI	Expenditures (\$000s)	Average Customers	Expenditures (\$000s)
2014	\$257,787	959,196	\$267,524
2015	\$260,034	968,766	\$270,475
2016	\$259,459	983,807	\$271,620
2017	\$259,631	997,380	\$269,275
2018	\$271,551	1,016,353	\$275,631
2019P	\$279,148	1,024,962	\$281,148

	Total Actual O&M		Total Approved O&M						
FBC	Expenditures (\$000s)	Average Customers	Expenditures (\$000s)						
2014	\$59,723	129,525	\$60,710						
2015	\$57,785	131,016	\$59,091						
2016	\$55,609	132,480	\$56,979						
2017	\$55,821	134,246	\$57,549						
2018	\$57,355	137,300	\$58,591						
2019P	\$58,701	138,649	\$59,201						



FortisBC Energy Inc. (FEI) and FortisBC Inc. (FBC) (collectively FortisBC) Application for Approval of a Multi-Year Rate Plan for 2020 through 2024 (the Application)	Submission Date: June 17, 2019
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2.2 Please comment on whether FortisBC expects its rates to exceed BC Hydro rates during the 2020-2024 period?

7 <u>Response:</u>

8 FBC's residential rates currently exceed BC Hydro's by approximately 10 percent. FortisBC 9 explains in the response to BCMEU IR 1.1 that it is unable to estimate rates for the period of 10 2020 to 2024 with reasonable certainty.

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142.3Please resubmit FortisBC's response to ICG IR 3.2, contained in Exhibit B-8 in15the proceeding for the FortisBC Inc. Application for a Certificate of Public16Convenience and Necessity for the Purchase of the Utility Assets of the City of17Kelowna as a working spreadsheet, and updated for FortisBC's proposed rates18for the period for 2020-2024, and correcting for any errors in the original19submission. Please also omit the comparable City of Kelowna rates.

20

21 Response:

Please refer to Attachment 2.3 for bill comparisons by customer class for FBC and BC Hydro for
 the years 2004 to 2019. Please note the following qualifications regarding the rate information
 contained in the analysis:

- Historical rate information for BC Hydro is provided where publicly available. As such,
 FBC does not have the necessary information to compare rates for certain years and
 rate classes in all years.
- The bill analyses do not contain any taxes.
- The bill analyses are based on FBC's best knowledge of how BC Hydro's rates are
 billed, and may differ from the actual bills a customer on that rate and that consumption
 level may receive.

FBC does not have forecasts of rates for the period 2020-2024, as explained in the response to
 BCMEU IR 1.1 and, therefore, is unable to provide the requested bill comparisons for that
 period.

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FortisBC Energy Inc. (FEI) and FortisBC Inc. (FBC) (collectively FortisBC) Application for Approval of a Multi-Year Rate Plan for 2020 through 2024 (the Application)	Submission Date: June 17, 2019
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- 2.4 Please compare BC Hydro rates increases with FortisBC rate increases during the term of the Current PBR Plan.
- 7 <u>Response:</u>
- 8 Please refer to the table below which outlines the BCUC approved rate changes for FEI, FBC
- 9 and BC Hydro for the FEI and FBC Current PBR Plan term, compared to composite inflation
- 10 factor (CPI:BC at 45 percent and AWE:BC at 55 percent).

BCUC A	BCUC Approved Rate Changes for FEI, FBC and BCH for the PBR Term (2014 - 2019)													
Year	BCH Fiscal	FEI	FBC	BC Hydro	Composite Inflation									
	Year	Delivery Rates Only			Factor (CPI/AWE) ²									
2014	2015	1.8%	3.3%	9.0%	1.8%									
2015	2016	0.7%	4.2%	6.0%	1.4%									
2016	2017	1.8%	3.0%	4.0%	1.4%									
2017	2018	0.0%	2.8%	3.5%	2.3%									
2018	2019	0.0%	0.0%	3.0%	2.7%									
2019	2020	1.1%	0.0%	6.8% ¹	2.1%									

Notes:

^{1.} Net bill increase equaled 1.76% taking into account the elimination of the deferral account rate rider of 5%.

. .

^{2.} The composite inflation factor is weighted 45 percent Consumer Price Index (CPI):BC and 55 percent Average Weekly Earnings (AWE):BC for the PBR term, as set out in the Application, pages B-42 and B-43, Figures B2-4 and B2-5.

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As shown in the table above, BC Hydro's rate increases during the Current PBR Plan term have
 been higher than FEI, FBC and the composite inflation factor.

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- Please update and file the table provided in response to ICG IR 1.13.1
 Application for Approval of a Multi-Year Performance Based Ratemaking Plan for
 2014 through 2018 proceeding, Exhibit B-15.
- 20
- 21 **Response:**

22 The table included in response to ICG IR 1.13.1 from the 2014-2018 PBR Application

23 proceeding was for FBC only. Please refer to the response to MoveUP IR 1.4.1, which includes

tables for both FEI and FBC.



1 3.0 Reference: Exhibit B-1, p. B-30

2

"FBC's rate increases have been close to inflation on an annual average basis."

3

3.1 Please comment on the merits of a plan that indexed rates to inflation for five

- 4
- years, with no deferral accounts.
- 5

6 **Response:**

7 As FortisBC understands it, the question is asking about a simplified price cap model using 8 inflation as the basis for setting rates over the course of a five-year MRP. The main merits of 9 such a plan would be in its simplicity and its incentive power. However, the potential for 10 unacceptable outcomes from such a plan, such as uncontrollable cost changes causing windfall 11 losses or surplus, funding shortfalls created by incremental spending on previously approved 12 projects (such as CPCNs or DSM spending increases) or reduced incentive for spending on 13 policy-related initiatives (e.g., DSM or GHG emission reduction programs), would, in FortisBC's 14 estimation, outweigh the merits.

15 The general formulations for incentive regulation (MRP or PBR) recognize that such simplified 16 formulations need, as a minimum, to be modified to accommodate flow-through mechanisms for 17 uncontrollable cost changes arising from matters like tax changes, extraordinary events such as 18 natural disasters or unusual capital spending requirements triggered by new regulations or 19 changes in standards. In the nomenclature of PBR these flow-though mechanisms are typically 20 referred to as Y-factors, Z-factors or cost trackers. Other MRPs adopt hybrid approaches 21 (partially cost-of-service and partially incentive regulation), which may include various flow-22 through mechanisms. The overall goal is to find the appropriate balance to best achieve 23 regulatory and policy objectives in the context applicable to the utility in guestion. FortisBC 24 believes its MRPs proposed in the Application for FEI and FBC meet that objective in their 25 particular circumstances.

In addition to the theoretical considerations described above, FBC does not believe that rate increases tied to inflation as proposed in the question would provide FBC with a reasonable opportunity to recover its prudently incurred costs, including a fair return on rate base. As such, a hybrid model such as the MRP proposal in the Application provides the appropriate framework to respond to the specific circumstances facing FBC.



FortisBC Energy Inc. (FEI) and FortisBC Inc. (FBC) (collectively FortisBC) Application for Approval of a Multi-Year Rate Plan for 2020 through 2024 (the Application)	Submission Date: June 17, 2019
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1 4.0 Reference: Exhibit B-1, Section 2.3.1.2, p. B-32, Table B2-3

4.1 Please update O&M tables provided in response to ICG IR 33.1, ICG IR 34.1,
ICG IR 35.1, ICG IR 36.1 (p. 63), Application for Approval of a Multi-Year
Performance Based Ratemaking Plan for 2014 through 2018 proceeding, Exhibit
B-15.

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7 Response:

8 The following are updates to the O&M tables from the FBC 2014 PBR proceeding, which 9 include 2013 to 2018 Actual for FBC for:

10

Table 1: Update to ICG IR 33.1

		Engineering Services and Project Management O&M Review (\$ thousands)																												
		2007 2008 2009					2009	2	2010	2011			2012		2013		2013		2013	2013		2014		2015		2016	2017		2	2018
		Ac	tual	A	ctual	Α	ctual	A	ctual	A	ctual	A	Actual	Α	ctual	Ap	proved	Pro	jection	Base		Actual	A	ctual	Α	ctual	A	Actual	Α	ctual
	Labour	\$	651	\$	823	\$	823	\$	928	\$	1,789	\$	1,951	\$	1,872	\$	2,127	\$	1,974	\$ 2,96	54 \$	2,778	\$	2,829	\$	2,754	\$	2,896	\$	3,786
	Non-Labour		322		361		320		314		574		664		865		664		848	90)3	987		1,198		1,319		1,246		1,513
11	Total O&M	\$	973	\$	1,184	\$	1,143	\$	1,242	\$	2,363	\$	2,615	\$	2,737	\$	2,791	\$	2,822	\$ 3,8	57 Ş	3,765	\$	4,027	\$	4,073	\$	4,142	\$	5,299

Table 2: Update to ICG IR 34.1

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Operations Support O&M Review (\$ thousands) 2011 2013 2015 2018 2007 2008 2009 2010 2012 2013 2013 2013 2014 2016 2017 Actual Actual Actual Actual Actual Actual Actual Actual Approved Projection Base Actual Actual Actual Actual Labour \$ 3,310 \$ 3,592 \$ 3,212 \$ 3,474 \$ 3,510 \$ 3,354 \$ 2,544 \$ 3,510 \$ 3,330 \$ 3,669 \$ 3,540 \$ 3,078 \$ 2,998 \$ 2,985 \$ 3,056 Non-Labour 4,369 3,726 3,557 3,152 2,992 2,754 2,298 3,831 2,968 3,042 2,773 3,110 2,725 2,922 3,118 (5,667) (5,741) (5,634) (5,186) (4,868) (3,534) (6,087) (5,247) (5,453) (5,148) (4,931) (5,156) Recoveries (6, 459)(5,114) (5,374) Total O&M \$ 1,220 \$ 1,651 \$ 1,028 \$ 993 \$ 1,315 \$ 1,240 \$ 1,308 \$ 1,254 \$ 1,051 \$ 1,258 \$ 1,166 \$ 1,074 \$ 792 \$ 750 \$ 800

14 15

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Table 3: Update to ICG IR 35.1

		EH8	LS O&N	/I Rev	view (Ş	tho	usands)																							
		2	2007	2	800	2	009	2	010	2	2011		2012		2013		2013		2013		2013		014	2015			2016	2	017	2	018
	Actual Ac				Actual /		Actual		ctual	Ac	tual	Ac	tual	Α	ctual	Approved		Proj	Projection		Base	A	ctual	A	ctual	A	ctual	Actual		Ac	tual
	Labour	\$	426	\$	458	\$	480	\$	586	\$	689	\$	714	\$	684	\$	760	\$	830	\$	889	\$	667	\$	445	\$	546	\$	390	\$	512
	Non-Labour		219		157		165		141		178		180		193		193		123		124		233		432		486		508		402
17	Total O&M	\$	645	\$	615	\$	645	\$	727	\$	867	\$	894	\$	877	\$	877	\$	877	\$	1,013	\$	900	\$	877	\$	1,032	\$	898	\$	914

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19 ICG IR 36.1, Exhibit B-15 in the FBC 2014 PBR proceeding provided Approved and Actual20 capital expenditures by expenditure category for the period 2007-2013.

Please refer to the response to BCUC IR 1.10.1 regarding the determination of capital formula amounts. For this reason, FBC is not able to provide formula allowed capital expenditures for the years 2014 through 2019 at the level of detail requested. However, the response to BCUC IR 1.10.1 provides a hypothetical classification of formula capital expenditures to growth and other capital expenditures, compared to actual, for the period of 2014-2019P.



15.0Reference:Exhibit B-1, p. C-87, Upper Bonnington Dam (UBO) Unit 6 Turbine2Runner Replacement Project

3 "This project includes the replacement of the UBO Unit 6 turbine runner that has reached
4 the end of its service life. The Unit 6 turbine runner is original and will be approximately
5 88 years old at its proposed date for replacement in 2023."

6 5.1 Has a condition assessment of the turbine runner been performed? If so, please7 provide the condition assessment report.

9 **Response:**

- FBC Asset Management performed a turbine runner inspection in 2016. Please refer toAttachment 5.1 for a copy of the report.
- 12

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5.2 Please provide a description of the efficiency gains that can be realized with a
new turbine runner given that the Upper Bonnington Old Units Refurbishment
project should be completed prior to this project.

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19 Response:

The UBO Units (Units 1 to 4) MW ratings are between 5.35 MW and 6.99 MW with unit efficiencies ranging between 78 percent to 85 percent. There are no unit efficiency increases planned under the UBO Units Refurbishment project.

The UBO Unit 6 MW rating is 25.2 MW. The start order for all 6 Upper Bonnington units favours Unit 5 and Unit 6. Currently, the efficiency of Unit 6 is 83.5 percent. A new runner for Unit 6 will have an increased efficiency and could allow a gain of approximately 2 MW. Also a new Unit 6 runner will allow the operation of Unit 6 at "speed no load", which will offer FBC more advantages from a water control point of view as FBC needs to maintain a minimum water flow on the Kootenay river due to environmental constraints.

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- 325.3Please provide the actual running time of Unit 6 for each of the last five years,33and the projected running time after the completion of the Upper Bonnington Old34Units Refurbishment project.
- 35



1 Response:

- 2 The actual running hours for Unit 6 for each of the last five years are provided below.
- 3 FBC dispatches the generating units at Upper Bonnington based on the Kootenay River water
- 4 flow set by BC Hydro, and as such FBC cannot provide the projected running hours.
- 5 Unit 6 Run times (hours):
- 6 2018 = 3,846
- 7 2017 = 4,526
- 8 2016 = 2,203
- 9 2015 = 423
- 10 2014 = 1,855



1 6.0 Reference: Exhibit B-1, p. C-92, Salmo Station Upgrade

- 2 "With the retirement of Ymir station, the capacity at Salmo will need to be increased to
 3 support the additional load, and a second transformer installed to support contingency
 4 planning criteria."
- 6.1 Please describe the contingency planning criteria in the reference, and how
 these criteria apply to the Salmo Station currently and also after the proposed
 project.
- 8

9 Response:

- 10 FBC's distribution planning criteria includes the following:
- 11 **3.2.2 Distribution Transformer Contingencies**
- 12 When determining the capability of the distribution system, in the event of the 13 loss of the single transformer, the minimum voltage level will be allowed to drop 14 by 2V from the normal planning criteria to 113V for three phase and 111 V for 15 single phase.
- 16 Planning will take corrective action, when for the predicted loading, the 17 distribution system is not capable of meeting this backup criteria with the 18 following exceptions:
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- Rural substations with feeders that extend long distances with open points >5km from both sources at 12.5kV will be reviewed on a case by case basis to determine whether or not it is reasonable and practical to meet this criterion. Attention should be given to costs of upgrades required, # of customers affected, and risk of an outage."
- 23 24 25

The voltages listed in the Planning Criteria are the voltages FBC needs to maintain in the system models to provide customers with voltages meeting CSA standards.

There are presently two stations near Salmo, Ymir station and Hearns station. Both of these stations have very limited capacity, each having a station capacity of 1.875 MVA. Due to age and condition of equipment, both stations are also planned to be decommissioned within the next five years.

Currently, to maintain voltage within planning criteria limits in the event of a Salmo T1 outage, only a small portion of Salmo load can be supplied by Hearns. The load limitation is due to undersized distribution feeders resulting in voltage outside the planning criteria and limited capacity at Hearns station. No load can be offloaded to Ymir due to similar issues. Under peak load conditions, all customers supplied by Salmo Feeder 2, which includes an industrial customer, and 651 customers on Salmo Feeder 1, would be without service. Therefore, only 16



1 percent of the total Salmo customers could be supplied during a Salmo T1 transformer outage

2 under peak load conditions.

3 Once a second transformer is installed, all Salmo load and the additional Ymir load could be 4 supplied during a Salmo T1 outage under peak load conditions. No customer outages would be 5 required. The second transformer will improve reliability for all residential, commercial, and 6 industrial customers in the area.

For contingency purposes, the existing system essentially has three transformers in the area to
use for offloading (Salmo, Ymir, and Hearns). This project seeks to locate two of these
transformers at Salmo, as opposed to having one located at Ymir and another located at Salmo.
The Hearns station would no longer be required for offloading during a Salmo transformer
outage if a second unit is installed.

12 Additionally, there have recently been new large load requests in the Salmo area. Given the

13 existing system configuration, these customers cannot be supplied during a Salmo transformer

14 outage. Once a second transformer is installed, the load could be supported in contingency.



1 7.0 Reference: Exhibit B-1, p. C-110

- 2 "FBC is proposing a Power Supply Incentive (PSI) which results in the sharing of power
 3 supply cost savings in order to provide an incentive [for] FBC to reduce its Power
 4 Purchase Expense, as described in Section C8.3.7 and Appendix C7."
- 7.1 Please file ICG IR 1.19.1, lines 9-20, Application for Approval of a Multi- Year
 Performance Based Ratemaking Plan for 2014 through 2018 proceeding, Exhibit
 B-15, and comment on the evolution of the incentive sharing mechanism for PPE
 from 2003 to the current proposed incentive sharing mechanism?
- 9

10 **Response:**

Please see lines 9-20 below for the response to ICG IR 1.19.1 in the FBC 2014 PBRproceeding, Exhibit B-15.

- 9 Please note that sharing dynamics of the Power Purchase Expense (PPE) differential through
- 10 the incentive sharing mechanism varied during the last ten years as follows:
- 2003-2005: PPE Variance Sharing by Customer: 65% of the first \$1 million & 75% of the remainder of the PPE variance was flowed through to customers. This was also subject to other adjustments;
- 142006:PPE Variance Sharing by Customer: 100% of PPE variance was flowed through15to customers;
- 2007-2011: PPE Variance Sharing by Customer: 50% of the PPE variance was flowed through to customers through the ROE sharing mechanism applicable during the period;
- 192012:PPE Variance Sharing by Customer: 100% of the PPE variance was flowed20through to customers.
- Please refer to the responses to BCUC IRs 1.102.12 and 1.102.13 for a comprehensive reviewof FBC's previous incentive mechanisms.
- 16 17 18 19 7.2 Please file BCUC IR 1.84.1 and BCUC IR 1.84.2, Exhibit B-15 and BCUC 2.5.1, 20 Exhibit B-24, Application for Approval of a Multi-Year Performance Based 21 Ratemaking Plan for 2014 through 2018 proceeding, and confirm that FortisBC 22 continues to agree with the Commission conclusion quoted in the response of 23 BCUC IR 1.84.1 and confirm that FortisBC continues to agree with the response 24 to BCUC IR 1.84.2?
- 25



1 Response:

Please see below for FBC's responses to BCUC IRs 1.84.1 and 1.84.2 from Exhibit B-15 and BCUC IR 2.5.1 from Exhibit B-24, as part of FBC's 2014 PBR proceeding. FBC continues to agree with the responses below. However, as part of the MRP, FBC has proposed the PSI to further align the interests of the customers and FBC and to incent FBC to increase efficiency, reduce costs, and enhance performance in the area of power supply. Customers benefit when FBC exerts substantial effort on power supply optimization, and further alignment of these interests increases the likelihood of additional savings to the customer.

- 9 84.0 Reference:
- Exhibit B-1, p. 98
- 10 Power Purchase Expense (PPE)

11 In past PBR's, PPE was forecast as an "at risk" item and was subject to the 12 50/50 sharing of overall Utility net earnings. At the time, some customers 13 believed that this mechanism would provide an added incentive to FBC to find 14 additional PPE savings from market purchases. In the last revenue requirement 15 proceeding, FBC was approved PPE Deferral Account, where by the PPE would 16 be trued-up in customer's rates in the following year.

- 17 84.1 Please compare and contrast the two approaches (of having PPE "at risk"
 18 and shared versus having PPE trued-up before sharing) in terms of their
 19 benefits for customers.
- 20 <u>Response:</u>

21 In its Decision regarding FBC's 2012-2013 RRA, the Commission made the 22 following determination (page 34):

23 "The Commission Panel finds that a deferral account to capture variances 24 between forecast and actual power purchase expense represents a reasonable 25 attempt to manage uncertainty and approves establishing the Power Purchase 26 Expense Variance Deferral Account as proposed by FortisBC. The Panel 27 understands the complexity of managing the number of variables affecting the 28 power purchase process and is in agreement that any positive or negative 29 variances are most appropriately borne by the customer. The establishment of a 30 Power Purchase Expense Variance Deferral Account is the most effective way to 31 manage this process with variances being handled in customer rates in 32 subsequent periods."

- FBC agrees with this view. Since that time, customers have benefited from the
 establishment of the PPE deferral account in a number of different ways:
- Customers are receiving the full benefit of FBC's ability to capture market
 opportunities to generate savings. Over the 2012 and 2013 period, this value
 can be seen in the table provided in response to BCUC IR 1.83.6. Under the



- "at-risk" method (the 2007 PBR Plan), 50% of this value effectively flowed through to the shareholder through the earnings sharing mechanism.
- The PPE variance account also captures the impact on PPE of increases in BC Hydro rates. In previous years, the Company was not "at risk" for any increases in PPE due to changes in BC Hydro rates. Any BC Hydro increases were allowed to flow directly through to customer rates based on forecast PPA purchases and were not offset by market savings generated in the same period.
- 9 • The establishment of the PPE variance deferral account has also allowed FBC to address the Commission's view that FBC's PPE forecasts were 10 "overly conservative" (refer to page 35 of the Decision). As discussed in 11 12 Section 2.4 of the Application (Exhibit B-1, pages 99-100), FBC has changed 13 its approach to forecasting PPE expense in an effort to more accurately 14 capture expected savings from market activities, which has resulted in a 15 lower power purchase expense forecast. Customers will benefit from 16 receiving some rate relief from having a lower PPE forecast embedded in 17 rates, rather than in recovering 50% of the savings in future rates.
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- 84.2 Did FBC undertake additional efforts to secure more low cost market sourced electricity in years when PPE was an "at risk" cost?
- 21 <u>Response:</u>

...

...

No. Regardless of whether it was a flow through or an "at risk" item, FBC actively
 manages the power purchase expense budget with the objective of minimizing
 power purchase expense while maintaining security and reliability of supply.

- 25
- 26 5.0 Reference: Exhibit B-7, BCUC 1.84.2 and 1 Exhibit B-15 ICG 1.19.1
 - Power Purchase Expense

28 In response to BCUC 1.84.2, as to whether FBC undertook additional efforts 29 to secure more low cost market sourced electricity in years when PPE was 30 an 'at risk' cost, FBC states "[n]o. Regardless of whether it was a flow 31 through or an 'at risk' item, FBC actively manages the power purchase 32 expense budget with the objective of minimizing power purchase expense 33 while maintaining security and reliability of supply." (Exhibit B-7, BCUC 34 1.84.2) In Industrial Customers Group (ICG) 1.19.1, FBC shows the actual 35 PPE variances and sharing since 2003.

Although FBC actively manages its PPE budget to minimize the variance
 between forecast and actual results, since 2010 these actions have still
 resulted in large variances. Does this imply that customers are best served



Page 16

by a continuation of the PPE variance deferral account with 100 percent of the variance flowing to customers?

3 <u>Response:</u>

4 In its response to BCUC IR 1.84.2, FBC was explaining that in either scenario it 5 would actively manage its power purchase portfolio with the "objective of 6 minimizing power purchase expense while maintaining security and reliability of 7 supply". This is a different statement from saying that "FBC actively manages its 8 PPE budget to minimize variances between forecast and actual results" as 9 suggested by the question. If the objective was to simply minimize variances 10 from the PPE budget, then FBC may not have sought to capture PPE savings in 11 response to actual load and market conditions and opportunities as they arose 12 between rate setting periods.

Nevertheless, as discussed in BCUC IR 1.84.1, FBC agrees that a continuation
of the PPE variance deferral account is the appropriate method at this time to
ensure that customers are receiving the full benefit of FBC's ability to capture
market opportunities to generate savings, if and when those opportunities should
arise. This is consistent with the Commission's finding in its 2012-2013 RRA
Decision (page 34) which stated:

- 19 "The Commission Panel finds that a deferral account to capture variances 20 between forecast and actual power purchase expense represents a 21 reasonable attempt to manage uncertainty and approves establishing the 22 Power Purchase Expense Variance Deferral Account as proposed by 23 FortisBC. The Panel understands the complexity of managing the number 24 of variables affecting the power purchase process and is in agreement that 25 any positive or negative variances are most appropriately borne by the 26 customer. The establishment of a Power Purchase Expense Variance 27 Deferral Account is the most effective way to manage this process with 28 variances being handled in customer rates in subsequent periods."
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7.3 Please update and file the table provided in response to ICG IR 1.19.1, Application for Approval of a Multi-Year Performance Based Ratemaking Plan for 2014 through 2018 proceeding, Exhibit B-15.

36 **Response:**

Table 1 below shows the table provided in the response to ICG IR 1.19.1 from FBC's 2014 PBRproceeding.



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Year	Approved Gross	Actual Gross	Approved PPE	Actual PPE	Pre Tax Variance	Actual Tax Rate	Applicable Income Tax	Post Tax Variance	Power @ 100% Fi	Purchase lowthrough	Power P @ 50% Flo	ourchase wthrough	Remarks
	Load	road			PPE		Component	PPE	Company	Customer	Company	Customer	
	(GW	/h)		(\$000s)		%			(\$0	00s)			
2003	3,146	3,182	60,635	58,436	(2,199)	37.32%	821	(1,378)	•	(1,378)	(689)	(689)	PPE Sharing Formula 2003-2006: 65%
2004	3,218	3,227	61,366	59,014	(2,352)	35.62%	838	(1,514)	-	(1,514)	(757)	(757)	of the first \$1 million & 75% of the reminder, subject to other
2005	3,297	3,346	59,451	60,404	953	34.87%	(332)	621	-	621	310	310	adjustments
2006	3,401	3,405	65,067	67,576	2,509	34.12%	(856)	1,653		1,653	826	826	2006 PPE Sharing: 100% to Customer
2007	3,453	3,410	69,260	66,629	(2,631)	34.12%	898	(1,733)		(1,733)	(867)	(867)	
2008	3,396	3,400	68,538	66,010	(2,528)	31.00%	784	(1,744)	-	(1,744)	(872)	(872)	PPE Sharing 2007-2011: PPE sharing during 2007 to 2011
2009	3,401	3,479	70,944	70,776	(168)	30.00%	50	(118)		(118)	(59)	(59)	was 50% / 50% for the Customer &
2010	3,509	3,326	80,408	71,964	(8,444)	28.50%	2,407	(6,037)		(6,037)	(3,019)	(3,019)	the Shareholder through the ROE Sharing Mechanism
2011	3,543	3,451	81,212	71,519	(9,693)	26.50%	2,569	(7,124)	-	(7,124)	(3,562)	(3,562)	strating meenanom
2012	3,490	3,413	87,149	75,999	(11,150)	25.00%	2,788	(8,363)	-	(8,363)	(4,181)	(4,181)	2012 PPE Sharing: 100% to Customer

Table 1

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3 Table 2 below provides that same table with 2014 to 2018 actual data and a projection for 2019.

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Table 2

	Approved	Actual	А	pproved	Actual PPF	、	Pre Tax /ariance	Actual Tax	Applicable		Post Tax	Power Purch Flowth	ase rou	@ 100% gh	P	ower Purcl Flowth	hase hrou	e @ 50% gh	
Year	Gross Load	Gross Load		PPE		PPE Rate Component Variance PPE Company Customer Company (PPE Rate Component Variance PPE Company Customer		mpany Customer		Remarks							
	G۱	Vh			(\$000s)			%		-		(\$000	ls)						
2014	3,519	3,451	\$	87,163	\$ 86,337	\$	(826)	26%	\$ 215	\$	(611)	\$ s -	\$	(611)	\$	(306)	\$	(306)	
2015	3,499	3,385	\$	117,837	\$ 110,707	\$	(7,130)	26%	\$ 1,854	\$	(5,276)	\$ 5 -	\$	(5,276)	\$	(2,638)	\$	(2,638)	2014 2010 202 4000
2016	3,540	3,387	\$	133,907	\$ 123,169	\$	(10,738)	26%	\$ 2,792	\$	(7,946)	\$ 5 -	\$	(7,946)	\$	(3,973)	\$	(3,973)	2014-2019 PBR - 100%
2017	3,559	3,594	\$	136,216	\$ 133,214	\$	(3,002)	26%	\$ 781	\$	(2,222)	\$ 5 -	\$	(2,222)	\$	(1,111)	\$	(1,111)	customer
2018	3,485	3,530	\$	133,071	\$ 123,842	\$	(9,229)	27%	\$ 2,492	\$	(6,737)	\$ 5 -	\$	(6,737)	\$	(3,368)	\$	(3,368)	customer
2019P	3,602	3,615	\$	145,065	\$ 142,985	\$	(2,079)	27%	\$ 561	\$	(1,518)	\$ 5 -	\$	(1,518)	\$	(759)	\$	(759)	

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7.4 Please file ICG IR 2.10.1, Application for Approval of a Multi-Year Performance Based Ratemaking Plan for 2014 through 2018 proceeding, Exhibit B-22.

12 **Response:**

- 13 Please refer below to ICG IR 2.10.1, Exhibit B-22 from FBC's 2014 PBR proceeding.
- 14 Reference: Exhibit B-15, ICG IR 19.1
- 15 PPE Variance Sharing
- 10.1 It is apparent that FortisBC has been significantly over-estimating power
 purchase costs since 2010. Assuming no rate smoothing is in effect,
 how much of the rate decrease in 2014 as compared to 2013 rates is



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attributable to the reduced power purchase expense? Please provide the numerical analysis to support the response.

3 Response:

4 The Company objects to the characterization that it over-estimates power 5 purchase costs. The Company estimates such costs on a prudent basis, but has 6 been successful in achieving savings from those costs for the benefit of 7 customers. FBC has been estimating power purchase costs by assuming firm 8 resources for expected customer loads and submits that it is appropriate to do 9 so. However, the Company has, in some instances been able to take advantage 10 of depressed energy markets and reduce its expected power purchase costs. 11 For 2012 and 2013 all such variances were approved to flow through directly to 12 For 2014 and the remaining term of the proposed PBR, the customers. 13 Company has also requested that any variances between approved and actual 14 power purchase expense are deferred and flow back to customers.

15 Assuming no rate smoothing, the impact on 2014 rates of the 2012-2013 Power 16 Purchase Expense variances calculation has been provided below.

Power Purchase Expense variance 2012 (including water fees)	8,438	Α
Power Purchase Expense variance 2013 (including water fees)	6,643	В
Total Power Purchase Expense variance 2012 & 2013 (including water fees)	15,081	C = A+B
2014 Revenue at prior year Rates	312,924	D
Rate decrement in 2014 due to 2012-13 Power Supply cost variance	4.8%	100% x (C/D)
Note: All cost data are in "Thousands"		

17 The rate decrease as indicated below would be 4.8 percent.

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- 7.5 Please confirm the comment "the Company has, in some instances been able to take advantage of depressed energy markets and reduce its expected power purchase costs" (from above IR response) also applies to the current energy markets, and explain the need for a financial incentive to reduce power purchase costs?
- 27 28



1 Response:

The electricity market has typically been in a low price environment for the past few years, which has helped FBC achieve mitigation benefits. FBC's ability to create savings is impacted by market prices, system and load conditions, and the ability to take advantage of market opportunities at the optimal time. Challenges of optimizing power purchase expense include the timing of entering into deals, the volume to purchase, coordination of maintenance outages, and optimizing the use of resources to maximize the value of surplus sales, all while ensuring compliance with all contracts and industry standards.

9 To achieve the best results, FBC needs to put in a significant effort, and the results can have a 10 significant impact to customer rates. Despite being in a relatively low cost environment the past 11 few years, there are signs that the electric market is beginning to change. For example, 12 following the rupture of the Enbridge pipeline in October 2018, volatility in the power markets 13 was high, including extended periods of high prices. FBC creates mitigation benefits by 14 reducing the cost of energy supplied and also through selling surplus capacity. A higher priced 15 market environment would likely mean that FBC is trying to increase available surplus sales, 16 while ensuring sufficient energy is supplied at the lowest reasonable cost. To maximize value 17 for customers in both low and high priced market environments, FBC must maintain constant 18 vigilance and apply appropriate strategies and policies in a dynamic fashion.

FBC has proposed the PSI to further align the interests of the customer and the Company with respect to FBC's optimization activities, to ensure that the best results are achieved for the customer. The power supply portfolio is the single largest item impacting customer rates, representing 43 percent of the 2019 revenue requirements.¹ The PSI will help to ensure FBC continues to allocate appropriate resources to the power supply function, and that it is continuing to seek out new ways to create value for the customer in both low and high priced market environments.

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- 297.6Please confirm that the proposed sharing mechanism has no downside risk to30FortisBC, and confirm that the sharing mechanism for the periods from 2003-312005 and 2007-2011 did include downside risk to FortisBC?
- 32
- 33 <u>Response:</u>

The proposed PSI is an incentive mechanism designed to create positive value for customers, which, above a threshold, is shared with the utility. In this construct, FBC only receives a

¹ FBC Compliance Filing for 2019, Section 11, Schedule 16. Power Supply cost of \$160.765 million divided by total Revenue of \$370.534 million = 43.4 percent.



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reward where it creates positive value of at least \$7.5 million relative to the passive portfolio.
FBC does not receive a penalty where it is unable to create positive incremental value for customers. Please refer to the response to BCUC IR 1.102.25 for a discussion of the safeguards which ensure that power supply and reliability risks are not impacted by the proposed PSI.

6 With respect to previous power supply incentives, the 1999 Market Incentive Mechanism (MIM) 7 and the 2000 – 2005 MIM also involved sharing benefits received, and did not include downside 8 risk to FBC. The 2007-2011 PBR included a different balance of risk and rewards, and FBC was 9 responsible for 50 percent of any variance, whether positive or negative, and regardless of the 10 source of the variance, either optimizations activities, load fluctuations or other, many of which 11 were outside the control of FBC. For a more comprehensive review of FBC's previous incentive 12 mechanisms, please refer to the responses to BCUC IRs 1.102.12 and 1.102.13.



1 8.0 Reference: Exhibit B-1, p. C-113

2 "Rather than continuing to apply for exogenous factor treatment for these costs [MRS]
3 which FBC is clearly required to undertake, FortisBC proposes that these costs be
4 treated as a forecast item outside of indexed O&M and outside of Regular capital."

- 5 8.1 Will FBC assume the risk of variances from the forecast of these costs?
- 6

7 <u>Response:</u>

- 8 Variances from forecast for capital and O&M items that are forecast annually will be captured in
- 9 the Flow-through deferral account, as shown on Page A-4 of the Application (Forecast O&M and
- 10 Capital) and will be returned to or recovered from customers in the subsequent year, consistent
- 11 with the currently approved treatment.



19.0Reference:Exhibit B-1, p. C-118, Table C4-1: Treatment of Variances in Revenue2Requirement Items from Forecast

Please provide in tabular format with a working spreadsheet an analysis that 3 9.1 identifies all the expenses and revenues that are booked in deferral accounts and 4 5 those that are not booked in a deferral accounts, assuming the deferral accounts 6 in this Application are approved and making any other assumption necessary to 7 complete the table, including the test year? Please include a column that 8 provides a percentage of total expenses and revenues that are subject to a 9 deferral account, and a column that identifies the total expenses and revenues 10 where FBC assumes the risk of variances from forecast?

12 **Response:**

11

FBC provides the requested information in the tables below and in the working excel file inAttachment 9.1.

15 FBC used 2019 Approved revenue requirement amounts per BCUC Order G-246-18 within the

16 attachment for comparison purposes, as detailed 2020 forecast revenue requirement amounts

17 are not available.



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Table 1: Current PBR Plan Deferral Account Treatment

				Covered	by				
			Flo	wthrough o	r Specific			Covered by B	Earnings
		2019		Deferra	ls			Sharing De	eferral
Cost Account	Арр	roved (\$000s)		\$000s	%	Applicable Deferrals		\$000s	%
Cost of Energy	\$	160,765	\$	160,765	100.0%	Flowthrough	Ş	-	0.0%
0&M		50,321		2,652	5.3%	Pension & OPEB Variance, Flowthrough		47,669	94.7%
Depreciation & Amortization		48,473		48,473	100.0%	Flowthrough		-	0.0%
Property Taxes		16,713		16,713	100.0%	Flowthrough		-	0.0%
Other Revenue		(9,268)		(9,268)	100.0%	Flowthrough		-	0.0%
2018/2019 Revenue (Deficiency)/Surp	li –	5,633		5,633	100.0%	2018-2019 Revenue Surplus		-	0.0%
Income Taxes		7,827		7,827	100.0%	Flowthrough		-	0.0%
Interest		40,956		40,956	100.0%	Flowthrough		-	0.0%
Equity Return		49,115		49,115	100.0%	N/A - No variance	_	-	0.0%
Total Expenses	\$	370,534	\$	322,866	87.1%		Ş	47,668	12.9%
Revenue	\$	370,534	\$	370,534	100.0%	Flowthrough	\$	-	0.0%



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Table 2: Proposed MRP Deferral Account Treatment

				Covere	d by			Covered by	y MRP
		Flowthrough or			Incentives (Sharing)				
		2019	S	pecific De	eferrals			Deferr	al
MRP Proposed Approved Deferrals	Appro	oved (\$000s)	\$	000s	%	Applicable Deferrals		\$000s	%
Cost of Energy	\$	160,765	\$ 1	59,215	99.0%	Power Supply Incentive ¹	\$	1,550	1.0%
O&M ²		50,321		2,853	5.7%	Pension & OPEB Variance, BCUC Fees Variance, Flowthrough		47,468	94.3%
Depreciation & Amortization		48,473		(7,620)	-15.7%	No variance for amortization, Flowthrough for Clean Growth Projects		56,093	115.7%
Property Taxes		16,713		16,713	100.0%	Flowthrough		-	0.0%
Other Revenue		(9,268)		-	0.0%	Flowthrough for Clean Growth Projects		(9,268)	100.0%
2018/2019 Revenue (Deficiency)/Surplus		5,633		5,633	100.0%	2018-2019 Revenue Surplus	- 1	-	0.0%
Income Taxes ³		7,827		-	0.0%	Flowthrough for Clean Growth Projects, Tax Rate Variances		7,827	100.0%
Interest ³		40,956		-	0.0%	Flowthrough for Clean Growth Projects, Interest Rate Variances		40,956	100.0%
Equity Return		49,115		49,115	100.0%	N/A - No variance		-	0.0%
Total Expenses	\$	370,534	\$ 2	25,909	61.0%		\$	144,625	39.0%
Revenue	\$	370,534	\$ 3	70,534	100.0%	Flowthrough	\$	-	0.0%
Notes:									
¹ - The Power Supply Incentive is not included in the sharing calculation but accrues to FBC. The assumed value is calculated in the response to BCUC IR 1.96.6.									
² - Gross O&M expense adjusted for the addition of BCUC fees of \$237 thousand as shown in Table C2-14 as set out in the response to BCUC IR 1.147.1.1.									

|³ - Given the base amounts used are approved amounts, no rate variances for interest or taxes are assumed



10.0 **Reference:** Exhibit B-1, p. C-146 1

- 2 "In summary, the responsibility for advancing clean growth innovation to meet BC's 3 climate objectives is shared between utilities, regulators and policy makers."
 - 10.1 Please confirm that the amount collected from ratepayers and held in the fund will be accumulated for future use?
- 5 6

4

7 **Response:**

8 The funds collected will be offsets to expenditures incurred through the term of the MRPs.

9 As described in Section C6.6 of the Application, the funds collected from customers less the 10 amounts expended will be recorded in a deferral account and carried through the term of the

- 11 Proposed MRPs, with any cumulative unspent funds at the end of the Proposed MRPs returned
- 12 to customers.
- 13
- 14
- 15
- Please confirm that the "Basic Charge Rider per Month" as identified in Table C6-16 10.2 17 3 have been calculated based on the proposed level of funds to be accumulated 18 in the Fund?
- 19

20 Response:

21 The Basic Charge Rider per Month as identified in Table C6-3 has been calculated based on 22 the level of funds estimated to be required for clean growth innovation activities each year of the 23 MRPs.

- 24
- 25

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- 27 10.3 Please comment on whether the Clean Growth Innovation Fund is consistent 28 with cost of service principles? If so, please provide full details of the costs to be 29 recovered in the Fund?
- 30
- 31 **Response:**
- 32 Please refer to the responses to BCUC IRs 1.70.6 and 1.79.3.
- 33
- 34



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4

- 10.4 Please explain the list of "utilities, regulators and policy makers" and the responsibility for advancing clean grow innovation is shared as suggested by the above comment?
- 5 6 **Response:**

Policy makers define and implement the policy frameworks to reduce GHG emissions and
enhance investment in innovation. This is done through the CleanBC Plan which outlines that
innovation will have an important role to achieve the GHG emissions reduction targets (see
page C-132).

The regulators evaluate and approve the undertakings as consistent with the policies and regulations directed by government. For example, the Greenhouse Gas Reduction (Clean Energy) Regulation has limited provisions for innovation spending such as under Section 3.C whereby a prescribed undertaking could be defined as "a project, program, contract or expenditure for research and development of technology, or for conducting a pilot project respecting technology, that may enable the public utility's customers to use electricity instead of other sources of energy that produce more greenhouse gas emissions."

Finally, utilities are the main implementers of clean growth innovation as they invest and/or
partner to pilot, demonstrate, evaluate and deploy technologies and practices as consistent with
the goals of government and approved by regulators.

21 Policy makers:

- Government of British Columbia including, but not limited to, the Ministry of Energy
 Mines and Petroleum Resources, Climate Action Secretariat, Ministry of Jobs, Trade and
 Technology.
- Government of Canada including, but not limited to, Natural Resources Canada,
 Environment and Climate Change Canada.
- Local government including, but not limited to, City of Vancouver and other communities
 that have declared climate emergencies.

29 **Regulators:**

- 30 BC Utilities Commission
- BC Oil and Gas Commission
- National Energy Board
- Codes and Standards Canada



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1 Utilities:

- FortisBC Energy Inc.
- FortisBC Inc.
- 4 FortisBC Alternative Energy Services Inc.
- 5 BC Hydro
- 6 Pacific Northern Gas
- 7 8



1 **11.0** Reference: Exhibit B-1, p. C-158

- 2 "The financial incentive for successful achievement of a target is an amount equivalent
 3 to additional basis points added to the Companies' allowed ROE."
- 4 11.1 Please update Table Celgar IR 1.2 filed in the 2012-2013 Revenue Requirement
 5 and Review of 2012 ISP, Exhibit B-5?

6

7 Response:

8 The table below provides the updated information from 2011.

		Gross Capital	
	BC CPI	Expenditures	
	(Annual	(Annual	
	Percent	Percent	FBC
	Change)	Change)	Rate Change
2011	2.4%	-37.8%	7.50%
2012	1.1%	-26.8%	1.50%
2013	-0.1%	62.6%	4.20%
2014	1.0%	-4.9%	3.30%
2015	1.1%	-10.2%	4.20%
2016	1.8%	-21.9%	2.96%
2017	2.1%	44.6%	2.76%
2018	2.7%	-2.8%	0.00%
2019F	2.3%	4.6%	0.00%

9

10 FortisBC uses the 2019 CPI inflation factor from the 2019 rates filing as a forecast for 2019.



1 12.0 Reference: Order G-110-12, Decision, p. 119

"FortisBC is seeking approval to defer what it expects to be costs in the amount of … for
its 2014 Revenue Requirements Application in 2013 … The Commission Panel is of the
view that these regulatory expenses are operating costs and should be capable of being
absorbed into rates without deferral."

6

12.1 Please confirm that FortisBC continues to record regulatory expenses in deferral accounts and does not view these expenses as operating costs.

7 8

9 Response:

FortisBC continues to record regulatory expenses in deferral accounts. In the absence of deferral accounts for regulatory proceedings, the costs of regulatory proceedings would have to be forecast as an O&M expense outside of the PBR formula O&M (or MRP indexed O&M) and trued up annually by way of the Flow-through deferral account since regulatory proceeding costs are not included in Base O&M Expense. FortisBC considers that this would be a more cumbersome and less efficient means of accounting for regulatory proceeding costs.

16 Regulatory proceeding cost accounts are necessary because the number and type of regulatory 17 proceedings can vary significantly by year. Once a regulatory proceeding is identified, the costs 18 of that proceeding cannot be accurately forecast by the utility given that they can vary 19 substantially, are not known at the time of making the regulatory account request, are unique to 20 the circumstances for each application, may change as the regulatory review process unfolds, 21 and are dependent on factors not within the utility's control. Factors not within the control of the 22 utility include the regulatory process determined by the BCUC and the degree of involvement of 23 interveners.

FortisBC further submits that it is accepted regulatory practice to defer the costs of regulatory applications for review and recovery following the regulatory review of the application itself and after all PACA claims have been paid. Review and recovery after the completion of the regulatory process allows for more transparency as the history of the costs is simpler to track and report on.

Recording amounts in deferral accounts also allows for benefits matching as the costs are generally recovered over the period of time related to the application itself, rather than over a

31 single year through O&M.



1 13.0 Reference: Exhibit B-1-1, Appendix B3, p. 3

2 "FBC does not have metering in place to accurately delineate losses between
3 transmission and distribution, and continues to estimate. To accurately delineate
4 between transmission and distribution losses, FBC would need to install additional
5 metering along the system, improve existing metering equipment in stations, enhance
6 related IT systems, and assign resources."

- 7 13.1 Please identify the metering that would need to be installed, and the locations, to
 8 accurately delineate between transmission and distribution losses. Please also
 9 provide a cost estimate for the additional metering.
- 10

11 Response:

12 To delineate between system level transmission and distribution losses, FBC would require 13 metering on the low side of each substation transformer that steps down from transmission to 14 distribution voltage and substation metering on each distribution feeder to support data 15 validation.

FBC would require additional metering at stations Hearns (HER), R.G. Anderson (RGA), West
Bench (WEB), Coffee Creek (COF), Crawford Bay (CRA), and Valhalla (VAL). In addition,
mobile units used to bypass station equipment during maintenance activities would need to be
equipped with metering. A class 5 cost estimate to install the required additional metering is
\$0.300 million.

Further to the installation costs of additional metering, FBC would need to maintain station metering to Measurement Canada standards, which entails costs for periodic exchanges and recalibration. In addition, FBC would incur costs associated with IT Systems to manage data aggregation and validation, similar in nature to the support provided for other remote read systems used for billing purposes.



Exhibit B-1-1, Appendix B8-3, "FBC Capital Directives", p. 9, Table 1 14.0 **Reference:** 2 A: B8-3-2

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- 5 6
- 14.1 Please provide further details regarding the "land procurement challenges" for the Okanagan Long Term Solution, including regulatory approvals, breakdown of expected costs, project schedule, and completion risks arising from "land procurement challenges".

7 8 Response:

9 The Okanagan Long Term Solution proposes the acquisition of industrial land within the City of 10 Kelowna area with the intent to construct a facility to meet FBC operational requirements. With 11 forty percent of the land in Kelowna in the Agriculture Land Reserve, the introduction of the 12 cannabis market into the industrial land sector, and increasing land values, the market has a 13 high demand for industrial land, coupled with the concern of low availability. The current market 14 situation is moving the industrial land search out to the Winfield Lake Country area.

15 The Winfield Lake Country area is within the service territory of FBC; however, this area is on 16 the outer bounds of the service territory. The majority of FBC operational work is performed 17 within the City of Kelowna area. FBC needs to ensure that the selection of land minimizes any operational inefficiency. 18

19 Large industrial land availability within the City of Kelowna rarely comes available on the market and has historically been of high cost. The 2017/2018 statistics show small and light industrial 20 21 bays (bare land without improvements in this area is rare) selling between \$200 - \$250 per 22 square foot. The expedient response required to secure land in this high demand industrial 23 market must be aligned with the appropriate FBC (internal) and regulatory review around such 24 purchase options.



115.0Reference:Exhibit B-1-1, Appendix B8-3, "FBC Capital Directives, p. 10, Section23.4

- 3
- 3.415.1 Please provide the criteria used to prioritize capital projects, and describe any
- 4 5
- 15.1 Please provide the criteria used to prioritize capital projects, and describe any consultation regarding the criteria?

6 **Response:**

- 7 The criteria used to prioritize capital projects during the Current PBR Plan term are described in8 Section 3.1 of Appendix B8-3 of the Application.
- 9 Going forward, as described in Section C3.2 on page C-52 of the Application, FortisBC has
- 10 implemented a new Asset Investment Planning (AIP) process across both FEI and FBC that
- 11 leverages the same value framework for all asset types. The criteria used to prioritize projects
- 12 using AIP are shown in Figure C3-1 on page C-54 of the Application. The criteria used in the
- 13 AIP value framework were developed based on industry best practice and included consultation
- 14 with subject matter experts within the Companies representing engineering, operations, health
- 15 and safety, environment, regulatory, community relations and customer service.



116.0Reference:Exhibit B-1-1, Appendix C2, Concentric Benchmarking Study, FBC,2p. 6

3 "These metrics were chosen in consultation between the Company and stakeholders.
4 In Concentric's opinion, this set of metrics provides for a reasonably comprehensive
5 overview of FBC's relative performance on both a financial and non-financial basis."

- 6
- 16.1 Please provide Concentric's opinion regarding the appropriate selection criteria for each metric included in the study.
- 7 8
- 9 Response:
- 10 The following response has been prepared by Concentric.

11 Concentric's opinion is that the selection criteria for the metrics to be included in the 12 benchmarking study should consider a reasonably broad range of financial, reliability, and 13 customer service metrics that provide a balanced assessment of the subject company's relative 14 performance. As cited in the data request, Concentric's view is that the chosen set of metrics 15 achieved those objectives.

- 16
- 17
- ••
- 18

21

- 1916.2Please comment on any criteria, adopted by Concentric, relevant to the number20of metrics used in a study?
- 22 Response:
- 23 The following response has been prepared by Concentric.

In general, Concentric's criteria regarding the number of metrics used in a study are specific to
 the nature and particular purpose of that particular study. The scope of some studies may be

- 26 focused on only a few metrics while others incorporate a broader range of metrics.
- 27
- 28
- 29
- 30 31
- 16.3 Please confirm that FBC customers are concerned about rate comparisons to other utilities, including BC Hydro?
- 32



1 Response:

FBC has not specifically researched this issue. However, it is likely that some consumers are concerned enough about their electricity rates that they actively investigate the differences and contributing cost drivers that might exist between different regions, or between FBC and BC Hydro. FBC focuses on its own operations and rates since it is not able to control the rates of other utilities.

- 7
- 8
- 9
- 1016.4Please confirm that FBC directed Concentric not to use rate comparisons as one11of the metrics used in the study?
- 12

13 **Response:**

14 As indicated at the Benchmarking study workshop held on November 13, 2018 to review the 15 results of the Benchmarking study, FortisBC stated its concern about including a comparison of 16 customer rate information as part of the study. The concerns included that customer rates may 17 be affected by a number of different factors and that customer rates have a weak link to the 18 overall efficiency of the utility. Other stakeholders also commented that there are many factors 19 that influence customer rates, making it difficult to draw meaningful conclusions from the 20 customer rate comparison. The BCUC has already confirmed that rates are influenced by a 21 wide range of factors and, therefore, higher rates in one utility compared with another does not 22 necessarily indicate inefficiency:

FortisBC operates with a different set of supply resources and with a different 23 24 customer base in terms of geography, population density and the residential/commercial/industrial mix it faces. The Commission Panel has no 25 26 mandate, nor does it find it appropriate, to require FortisBC to manage its utility 27 business to produce rates or programs identical to those of BC Hydro. The 28 Commission Panel believes that FortisBC's responsibility is to provide safe and 29 reliable service in a cost-effective manner consistent with British Columbia's 30 energy objectives. To do so, FortisBC must design and manage its system based 31 on the resources available to it and the needs of its customers. This, at times, 32 may result in rates that are greater than those of BC Hydro and potentially times 33 when they are less.²

FortisBC suggested two solutions for ICG to consider. FortisBC offered to help ICG in obtaining the requested data but that it not be included as part of the Benchmarking Study. FortisBC also

² FBC 2012-2013 Revenue Requirements and 2012 Integrated System Plan Decision (August 15, 2012) at pp. 20-21.



- 1 2 regulatory proceeding for the MRP and the Benchmarking Study. ICG has declined both 3 solutions offered by FBC to date.
- 4 As a result of the above concerns noted by FortisBC and stakeholder comments received at the 5 workshop, FortisBC did not request the information be included in the Benchmarking Study 6 prepared by Concentric.
- 7 An excerpt from Appendix C2-4, Benchmarking Study Workshop Minutes, on this topic is 8 reproduced below for ease of reference:

Discussion occurred regarding the choice of metrics for the Benchmarking Study Terms of Reference. ICG asked that a comparison of customer rates against other utilities including BC Hydro be included as part of the Benchmarking Study. ICG commented that while customer rates are a blunt proxy for efficiency, a comparison would be useful in providing a high level comparison of utilities. Additionally, ICG noted that the requested customer rate comparison would be easy to prepare as the data is publicly available. CEC stated their support for ICG's requests. Other stakeholders commented that there are many factors that influence customer rates, making it difficult to draw meaningful conclusions from the customer rate comparison. During the discussion, noted was that BC Hydro was already producing the information for its use and that perhaps ICG can access that information to find the information it is looking for. One participant commented that this information can be retrieved as part of the discovery process of the PBR proceeding.

FortisBC stated its concerns about including a comparison of customer rate information as part of the Benchmarking Study. The concerns included that customer rates may be affected by a number of different factors and that customer rates have a weak link to the overall efficiency of the utility. After discussion, FortisBC offered two solutions for ICG to consider. FortisBC offered to help ICG in obtaining the requested data but that it not be included as part of the Benchmarking Study. FortisBC also suggested that ICG can request the information as part of an information request in the anticipated regulatory proceeding on review of the company's next multi-year rate plan (MRP) and the Benchmarking Study.

ICG stated that the two options outlined were not what it had requested. ICG stated that it is requesting the customer rate comparison information be included as an attachment/appendix to the Benchmarking Study.

- 9
- 10
- 11
- 12
- 13 14
- 16.5 Please confirm that rate comparisons are not difficult to "glean from public sources"?
- 15

16 Response:

17 FortisBC's concern is not about finding the rate comparison information from public sources and

18 instead is about the intended use of the information in assessing overall efficiency of utilities.



Customer rates may be affected by a number of different factors and customer rates have a
 weak link to the overall efficiency of the utility.

As noted, at the November Benchmarking workshop, FortisBC offered to help ICG obtain therequested data.

- 5
- 6
- 7
- 8 9
- 16.6 Please comment on whether Concentric could amend the study so as to include rate comparisons as one of the metrics used in the study?
- 10

11 Response:

For the reasons outlined in the response to ICG IR 1.16.4, it is not appropriate to include rate comparison information in the Benchmarking Study prepared by Concentric. Nevertheless, as stated in the November Benchmarking workshop, ICG can use the Hydro Quebec Distribution annual rate comparison document to compare FBC's rates with other Canadian utilities. The

16 latest version of Hydro Quebec's study can be found at the link below:

17 18	http://www.hy prices.html	droquebec.com/residential/customer-space/rates/comparison-electricity-
19 20		
21 22 23 24 25 26	16.7 <u>Response:</u>	Please comment on whether rate comparisons can be an indication of a causal relationship between operating circumstances and costs, and between inputs and outputs?
27	Please refer t	o the response to ICG IR 1.16.4.
28 29		
30 31 32 33	16.8	Please confirm that rate comparisons can be an indication of the company's performance against an industry group?



FortisBC Energy Inc. (FEI) and FortisBC Inc. (FBC) (collectively FortisBC) Application for Approval of a Multi-Year Rate Plan for 2020 through 2024 (the Application)	Submission Date: June 17, 2019
Response to Industrial Customers Group (ICG) Information Request (IR) No. 1	Page 37

1 <u>Response:</u>

2 Not confirmed. Please refer to the response to ICG IR 1.16.4.



117.0Reference:Exhibit B-1-1, Appendix C2, Concentric Benchmarking Study, FBC,2p. 10

"As shown in the figure above, the companies in the peer group have different mixes of
functions within their operational profiles. This can lead to skewed results if certain
companies have a greater proportion of their operations in traditionally higher cost
functions or functions that are more subject to cost variation (e.g. electric generation)."

7 8 17.1 Please comment on whether the cause (e.g. electric generation) of the "skewed results" can increase rates?

9

10 Response:

11 The following response has been prepared by Concentric.

12 Yes, electric generation can increase rates if, for example, a utility includes such investments in 13 its rate base.

- 13 Its rate base
- 14
- 15

20

- 16
- 17 17.2 Please provide the cost/capital invested in electric generation as compared to the cost/capital invested in distribution and transmission for each of the utilities in the peer group?

21 Response:

22 The following response has been prepared by Concentric.

Figure 3 on page 10 of Appendix C2-2 provides a breakdown of net plant by distribution, transmission, generation, and other operations as a percentage of total net plant, and allows for a comparison across each utility in the peer group. Because of confidentiality restrictions, Concentric cannot provide the names of the individual companies in Figure 3, nor can Concentric provide the underlying dollar amounts of investment.

- 28
- 29
- 30 31
- 17.3 Please comment on whether the focus of the study on the distribution-only segment of the peer group companies limits the study conclusions? If so, how?
- 32 33



1 Response:

2 The following response has been prepared by Concentric.

3 In the "Benchmarking and Trend Analysis" portion of the study, the focus on the distribution-only 4 segment for purposes of financial benchmarking does not limit the study conclusions in that the 5 study conclusions are specific to the analyses provided in the study (i.e., Concentric did not 6 extrapolate distribution-related results to non-distribution-related segments). In addition, please 7 note that other segments were considered in the study, including the inclusion of total O&M 8 expense and total net plant in the "Stand-Alone Financial Analysis" portion of the study, as well as the inclusion of benchmarking metrics (e.g., generator forced outage rate) that reflect FBC's 9 10 performance in other, non-distribution segments.

11 Clearly, the focus on the distribution-only segment in certain portions of the analysis results in 12 excluded functions not being captured in those benchmarking results. That factor, however, 13 was outweighed by the fact that the distribution-only segment provided the most meaningful 14 benchmark, because of significant differences between the scope of peer companies' 15 transmission and generation facilities, as well as differences between the level of customer care 16 services provided across the Canadian utilities. Use of the distribution segment also ensured 17 the inclusion of the greatest number of peer group companies, providing for more reliable 18 benchmarking results.

Attachment 2.3

REFER TO LIVE SPREADSHEET MODEL

Provided in electronic format only

(accessible by opening the Attachments Tab in Adobe)

Attachment 5.1

RUNNER INSPECTION P1 – P6 & P11					l P1 – P6 & P11	JOB PLAN:	0300
	Date:		March	14/ 2017	7	Repetitive Job #	8133
	Plant:	2	UBO	Unit:	#6	Job Order #	115364

Number of Blades: 15

Bucket	Comments	Images	Images
	(Current Condition)	(Prior to repair)	(Post repair)
w = widt	h I = length d = depth		
#1	 -Cavitation in Area A-B-C 8"w x 30"l x 3/4"d -Cavitation was ground out to clean metal with grinder after carbon arc gouging, welded with Nitronic 60 to be above surface and finished ground to a smooth profile. Some weld marks remained due to time constrictions. -Hole in Area A-B 1"w x 1"l x 1/2"d (left as is) -Cav on vent edge 1/2"w x 12"l x 1/8"d (left as is) 		
#2	 -Cavitation in Area A-B-C 8"w x 30"l x 1/2"d -Cavitation was ground out to clean metal with grinder after carbon arc gouging, welded with Nitronic 60 to be above surface and finished ground to a smooth profile. Some weld marks remained due to time constrictions. -Hole in Area A-B 1"w x 1"l x 1/2"d (left as is) -Cav on vent edge 1/2"w x 6"l x 1/8"d (left as is) 		

#	 -Cavitation in Area A-B-C 6"w x 30"l x 3/4"d -Cavitation was ground out to clean metal with grinder after carbon arc gouging, welded with Nitronic 60 to be above surface and finished ground to a smooth profile. Some weld marks remained due to time constrictions. -Hole in Area A-B 1"w x 1"l x 1/2"d (left as is) -Cav on vent edge 1/2"w x 3"l x 1/8"d (left as is) 	BOLTOW KILD	Sarrow Mar
#	 -Cavitation in Area B-C 6"w x 20"l x 1/2"d -Cavitation was ground out to clean metal with grinder after carbon arc gouging, welded with Nitronic 60 to be above surface and finished ground to a smooth profile. Some weld marks remained due to time constrictions. -Cav in Area A-B 2"w x 3"l x 1/8"d (left as is) -Cav on vent edge 1/2"w x 2"l x 1/8"d (left as is) 	ao L+6 w XhD	
#	 -Cavitation in Area A-B-C 8"w x 30"l x 3/8"d -Cavitation was ground out to clean metal with grinder after carbon arc gouging, welded with Nitronic 60 to be above surface and finished ground to a smooth profile. Some weld marks remained due to time constrictions. -Cav in Area A-B 2"w x 3"l x 1/8"d (left as is) -Cav on vent edge 1/2"w x 3"l x 1/8"d (left as is) 		
#	 -Cavitation in Area B-C 6"w x 16"l x 3/8"d -Cavitation was ground out to clean metal with grinder after carbon arc gouging, welded with Nitronic 60 to be above surface and finished ground to a smooth profile. Some weld marks remained due to time constrictions. -Hole in Area A-B 1"w x 2"l x 1/2"d (left as is) -Cav on vent edge 1/2"w x 2"l x 1/8"d (left as is) 	#6 16 ¹ 2x 5 ¹ 6 x ¹ 62	

#7	-Cavitation in Area A-B-C 6"w x 30"l x 3/8"d -Cavitation was ground out to clean metal with grinder after carbon arc gouging, welded with Nitronic 60 to be above surface and finished ground to a smooth profile. Some weld marks remained due to time constrictions. -Cav in Area A-B 2"w x 3"l x 1/8"d (left as is) -Cav on vent edge 1/2"w x 3"l x 1/8"d (left as is)		
#8	-Cavitation in Area A-B-C 6"w x 30"l x 3/8"d -Cavitation was ground out to clean metal with grinder after carbon arc gouging, welded with Nitronic 60 to be above surface and finished ground to a smooth profile. Some weld marks remained due to time constrictions. -Cav in Area A-B 2"w x 3"l x 1/8"d (left as is) -Cav on vent edge 1/2"w x 6"l x 1/8"d (left as is)	10 30'2 × 6 37 % 3	
#9	-Cavitation in Area B-C 6"w x 20"l x 3/8"d -Cavitation was ground out to clean metal with grinder after carbon arc gouging, welded with Nitronic 60 to be above surface and finished ground to a smooth profile. Some weld marks remained due to time constrictions. -Cav in Area A-B 2"w x 3"l x 1/8"d (left as is) -Cav on vent edge 1/2"w x 2"l x 1/8"d (left as is)		
#10	-Cavitation in Area A-B-C 6"w x 30"l x 3/8"d -Cavitation was ground out to clean metal with grinder after carbon arc gouging, welded with Nitronic 60 to be above surface and finished ground to a smooth profile. Some weld marks remained due to time constrictions. -Cav in Area A-B 2"w x 3"l x 1/8"d (left as is) -Cav on vent edge 1/2"w x 2"l x 1/8"d (left as is)		

#11	-Cavitation in Area A-B-C 6"w x 30"l x 3/8"d -Cavitation was ground out to clean metal with grinder after carbon arc gouging, welded with Nitronic 60 to be above surface and finished ground to a smooth profile. Some weld marks remained due to time constrictions. -Cav in Area A-B 2"w x 3"l x 1/8"d (left as is) -Cav on vent edge 1/2"w x 2"l x 1/8"d (left as is)	+ 7 301 x 6 w x 162	
#12	-Cavitation in Area B-C 6"w x 20"l x 3/8"d -Cavitation was ground out to clean metal with grinder after carbon arc gouging, welded with Nitronic 60 to be above surface and finished ground to a smooth profile. Some weld marks remained due to time constrictions. -Cav in Area A-B 2"w x 3"l x 1/8"d (left as is) -Cav on vent edge 1/2"w x 12"l x 1/8"d (left as is)		
#13	-Cavitation in Area A-B-C 8"w x 30"l x 3/8"d -Cavitation was ground out to clean metal with grinder after carbon arc gouging, welded with Nitronic 60 to be above surface and finished ground to a smooth profile. Some weld marks remained due to time constrictions. -Hole in Area A-B 1"w x 2"l x 1/2"d (left as is) -Cav on vent edge 1/2"w x 2"l x 1/8"d (left as is)		
#14	-Cavitation in Area A-B-C 8"w x 30"l x 3/8"d -Cavitation was ground out to clean metal with grinder after carbon arc gouging, welded with Nitronic 60 to be above surface and finished ground to a smooth profile. Some weld marks remained due to time constrictions. -Cav in Area A-B 2"w x 3"l x 1/8"d (left as is) -Cav on vent edge 1/2"w x 8"l x 1/8"d (left as is)		

-Cavitation in Area A-B-C 8"w x 30"l x 3/8"d #15 -Cavitation was ground out to clean metal with grinder after carbon arc gouging, welded with Nitronic 60 to be above surface and finished ground to a smooth profile. Some weld marks remained due to time constrictions. -Cav in Area A-B 2"w x 3"l x 1/8"d (left as is) -Cav on vent edge 1/2"w x 12"l x 1/8"d (left as is) Comments/Recommendations: Cavitation was repaired on low pressure side of all 15 blades using Nitronic 60 as filler material. . Total Nitronic used on this outage was 89 lbs of 030 wire. Turbine was repaired to a mediocre standard that will facilitate extra resources at the next scheduled runner weld. Cavitation at area A-B was not repaired on all blades and small holes in some blades were also left. These were not addressed due to safety concerns and time constraints. Next runner weld, time will be required to build a platform to access these locations safely from the top. Vent edges also require repair and require additional time to complete. Grinding finish was fair with some weld marks remaining due to time constrictions. Draft tube liner and hooks are in good condition. Base ring, wicket gates and scroll case have no visual issues other than where penstock meets scroll case there is a gap. Pics are on G> Generation> Pictures> P2 Inspection Outage Pics> 2017 Unit Outages> P2 G6 Mar

2017 Runner Weld

Was runner deck installed? \square Yes \square No

Runner deck condition: Mid-section pieces of deck were inspected by WK, CM in February 2017. Mid brace supports were cracked in several locations and were repaired before use. Outer P2 pieces are in need of having the wood replaced in the future. Visual inspection was done and no other abnormalities were found. Installation of deck required that the chain length be 37 links of Grade 8 chain with ring and hammer lock attached for G6.

Compare runner condition against previous report, describe wear increase over time:

Runner requires repair every two years and cavitation is aggressive. The 2014 runner weld was done with only one shift of 4 workers and a watch and upper cavitation was left making the erosion worse at this runner weld.

Sign Off:

FBC Tradesman

Date: _____ FBC Engineer

Date:

Attachment 9.1

REFER TO LIVE SPREADSHEET MODEL

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