

Diane Roy Director, Regulatory Services

Gas Regulatory Affairs Correspondence Email: gas.regulatory.affairs@fortisbc.com

Electric Regulatory Affairs Correspondence Email: <u>electricity.regulatory.affairs@fortisbc.com</u> FortisBC 16705 Fraser Highway Surrey, B.C. V4N 0E8 Tel: (604) 576-7349 Cell: (604) 908-2790 Fax: (604) 576-7074 Email: <u>diane.roy@fortisbc.com</u> www.fortisbc.com

September 28, 2016

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

Attention: Mr. Robert Hobbs

Dear Mr. Hobbs:

Re: FortisBC Inc. (FBC)

Project No. 3698887

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

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

On August 8, 2016, FBC filed the Application referenced above. In accordance with Commission Order G-123-16 setting out the Regulatory Timetable for review of the Application, FBC respectfully submits the attached response to ICG IR No. 1.

If further information is required, please contact Joyce Martin at 250-368-0319.

Sincerely,

FORTISBC INC.

Original signed:

Diane Roy

Attachments

cc (email only): Commission Secretary Registered Parties



1. Reference Exhibit B-1, p. 27:

- 2 The increase in the 2017 Forecast PPA is due to increased gross load as well as 3 increases to the Brilliant, Waneta Expansion, and BC Hydro contract rates.
- 4 5

1

1.1 Please provide the contract rates for each of the contracts referenced above.

6 **Response:**

7 The forecast cost of the Brilliant Power Purchase Agreement (BPPA) Base Energy is calculated 8 in accordance with the terms set out in the BPPA dated April 4, 1996 as approved by 9 Commission Order E-7-96. The BPPA Upgrade Energy is calculated based on the return on 10 capital of periodic plant capital upgrade work that is in accordance with the terms set out in the 11 BPPA dated April 4, 1996 as approved by Commission Order E-7-96 and the Brilliant Power 12 Purchase Agreement Second Amendment dated March 30, 2000 as approved by Commission 13 Letter L-57-00. The forecast cost of the BPPA Tailrace Capacity is calculated in accordance 14 with the June 7, 2001 Letter agreement on Tailrace Improvements as accepted by Commission 15 Order E-17-01. The 2017 BPPA Base Rate is equal to \$43.94/MWh, the BPPA Upgrade Rate is 16 \$31.22/MWh, and the BPPA Tailrace Capacity rate is \$4,426/MW/Month.

The forecast cost of the BC Hydro PPA energy is calculated in accordance with BC Hydro Rate
Schedule 3808 (RS3808). The 2017 RS3808 energy rate is \$46.99/MWh, increasing to
\$48.63/MWh on April 1, 2017. The 2017 RS3808 capacity rate is \$8,016/MW/Month, increasing
to \$8,297/MW/Month on April 1, 2017.

- 21 Waneta Expansion contract rates are confidential pursuant to Commission Order E-15-12.
- 22



1 2. Reference: Exhibit B-1, p. 98:

FBC will file an Evidentiary Update to request approval to capture the amount of the impact in the deferral account that was approved for this purpose in Order G-202-15.

- 5 2.1 Please comment on whether FBC proposes to file an Evidentiary Update now 6 that the Commission has issued Order G-129-16 and accompanying decision? If 7 not, please explain why FBC believes that its cost of capital should next be 8 reviewed, including why a lower equity component is not appropriate?
- 9

2

3

4

10 Response:

11 An evidentiary update is not required as a result of the decision in the FEI proceeding. As part of 12 Order G-129-16, the Commission panel determined that FortisBC Energy Inc. should continue 13 to serve as the benchmark utility for cost of capital determination for any other utility in British 14 Columbia that uses the benchmark utility to set rates. The Commission also determined that 15 both return on equity and equity thickness of the benchmark utility shall remain unchanged. 16 FBC's equity risk premium above the benchmark allowed ROE and its Common equity component were not part of the proceeding. Therefore Order G-129-16 did not cause any 17 18 change to FBC's return on equity and equity thickness.

FBC's equity risk premium and common equity component were determined as part of the GCOC Stage 2 decision issued on March 25, 2014. FBC believes that there has been no significant change in FBC's risk profile since that Decision that would warrant a review at this time.

- 23
- 24
- 25
- 26 27

28

2.2 Please comment on whether there has been a change in FBC business risks relative to FEI business risks since the last review of FBC business risks?

29 **Response:**

30 FBC outlined in the GCOC Stage 2 Application (page one) that it is subject to higher business risk than FEI due to: (i) the greater risk faced by FBC as a vertically integrated electric utility 31 32 (electric utilities with power generation facilities are considered higher risk); (ii) a smaller service 33 area; (iii) a less diverse customer and economic base; (iv) a small wholesale and Industrial 34 customer class responsible for a large proportion of FBC's total load, with the ability to leave 35 FBC's service: (v) higher electricity rates than those of BC Hydro; and (vi) somewhat higher 36 supply risk. There has been no significant change in any of the above-mentioned risk items 37 since March 2014 when the GCOC Stage 2 Decision was issued.



FortisBC Inc. (FBC or the Company) Multi-Year Performance Based Ratemaking Plan for 2014 through 2019 Annual Review for 2017 Rates (the Application)	Submission Date: September 28, 2016
Response to Industrial Customers Group (ICG) Information Request (IR) No. 1	Page 3

- 1
- 2

5

6

7

2.3 Please comment on whether a review of the cost of capital of FBC would be appropriate, assuming there has been a change in FBC business risks relative to FEI business risks since the last review of FBC business risks (Order G-75-13)?

8 <u>Response:</u>

9 A review of the cost of capital of FBC would not be appropriate at this time. FBC's business risk 10 relative to benchmark was last reviewed as part of the GCOC Stage 2 proceeding (Oder G-47-14). As stated in response to ICG IR 1.2.2, the GCOC Stage 2 Decision was issued in March 2014. There has been no significant change in FBC's business risk relative to FEI's business 13 risk since that Decision was issued.

- 14
- 15
- 16

172.4Please confirm that in the Order G-129-16 decision the Commission determined18that the common equity and ROE approved for FEI would serve as the19benchmark cost of capital for any other utility in BC, and that the Commission did20not determine the appropriate common equity and ROE relative to the FEI21benchmark for any other utility in BC?

22

23 Response:

Order G-129-16 maintained FEI as the benchmark utility for cost of capital determination for any other utility in British Columbia that uses the benchmark to set rates. The Commission determined that both return on equity and equity thickness of the benchmark utility shall remain unchanged. FBC's equity risk premium above the benchmark allowed ROE and its common equity component were not part of that proceeding.

- 29
- 30

- 2.5 Please confirm that the scope of the Order G-129-16 proceeding included
 changes in business risks of FEI, and the scope of the Order G-129-16
 proceeding did not include changes in business risks of FBC? If confirmed,
 please explain what evidence FBC relies upon to determine the cost of capital of
 FBC for the purpose of setting 2017 rates in this proceeding?
- 37



FortisBC Inc. (FBC or the Company) Multi-Year Performance Based Ratemaking Plan for 2014 through 2019 Annual Review for 2017 Rates (the Application)	Submission Date: September 28, 2016
Response to Industrial Customers Group (ICG) Information Request (IR) No. 1	Page 4

1 Response:

Confirmed. For the purposes of setting 2017 rates, FBC's allowed ROE and equity thickness are unchanged. The GCOC Stage 2 Decision is the reference decision for FBC's current risk premium and equity thickness relative to the benchmark. The Commission's GCOC Stage 2 Decision did not specify that it only applied for a particular period of time. FBC does not believe there is any merit to a review at this time. Please refer to the responses to ICG IR 1.2.2 for a more detailed explanation.

8 9		
10 11 12 13 14 15 16 17	2.6 <u>Response:</u>	Please confirm that the Commission examined in Order G-129-16 and in the accompanying decision FEI's level of risk relative to other Canadian utilities, but did not examine FBC's level of risk relative to FEI's level of risk? Please comment on when it would be appropriate to examine FBC's level of risk relative to FEI's level of risk?
18	Confirmed.	
19	Please refer t	to the response to ICG IR 1.2.1.
20 21		
22 23 24 25 26 27	2.7 <u>Response:</u>	Please comment on whether both FBC and customers, independently of FBC, should have an opportunity to initiate a review of the utility's cost of capital? If not, in what circumstances would FBC expect to apply to lower its cost of capital?
28 29		utility, has the ability to bring forth an application if FBC believes a change to the al is warranted. The Commission has the ability to direct such a review at its

30 discretion.

31 Intervener groups may ask the Commission to initiate a review of the utility's cost of capital. The

32 Commission would then decide if there is enough evidence that warrants a new regulatory

33 review process and can ask the utility to file an application for the review.



1 **3.** Reference: Exhibit B-1, Appendix D, p.2:

2 Units 1 through 4, each with a nameplate rating of 5.7 megawatts (MW), were 3 commissioned between 1907 and 1916, and are commonly referred to as the "Old 4 Plant" or "Old Units". Two additional units, Unit 5 and Unit 6, were installed in 5 1940, then with nameplate ratings of 18.4 MW.

3.1 Please provide a summary of the water licenses FortisBC holds at Upper Bonnington, and the maximum flow capacity of UBO units 5 and 6, and each of the Old Units, both current and after the proposed refurbishment. Does the proposed refurbishment of the Old Units allow for increased flow capability through any of the units?

12 **Response:**

13 FBC holds three water licenses with respect to UBO, for a total water license of 12,800 cubic

14 feet per second (cfs). The three licenses are F012698 (1,400 cfs), F0126399 (3,136 cfs), and

15 F012705 (8,264 cfs).

16 The maximum flow through each unit is summarized in the table below; however, it can vary 17 depending on the head pressure at the facility.

18

6

7

8

9 10

11

Unit	Peak Flow (CFS)
Unit 1	1,450
Unit 2	1,200
Unit 3	1,200
Unit 4	1,450
Unit 5	4,550
Unit 6	4,100
Total	13,950

Peak Flow at UBO

19

20 While the maximum flow at UBO is greater than the water license, the facility is operated to the

21 water license. The Canal Plant Agreement (CPA) calculations of Entitlement Energy and

22 Entitlement Capacity are restricted by the water license.

The proposed refurbishments of the Old Units will not increase flow capability through any of theunits.

25



3

4

5

3.2 Has FortisBC investigated retiring and decommissioning one unit and using the parts to prolong the life of the remaining units, and thereby defer the proposed project?

6 **Response:**

7 Retiring and decommissioning one Unit and using the parts to prolong the life of the three 8 remaining Units is not feasible because the units are of similar vintage and deterioration, have 9 been exposed to the same operating conditions and, as such, the use of refurbished parts from 10 one unit would not be acceptable for use as replacement parts for the remaining other three 11 Units. Further, deferral of the proposed project would not address the employee safety and 12 environmental risks posed from the increasing likelihood of failure from the obsolete design and 13 poor condition of the generating units or the economic impacts of decommissioning any of the 14 Units, as described in the response to BCUC IR 1.31.1.

- 15 16
- 17
- 183.3Has FortisBC investigated any cooperative arrangement with the City of Nelson's19Bonnington Falls Generating Station to identify any excess capacity that may be20available at that facility? Is it economic to divert water to another facility in21exchange for energy rather than incurring capital and operating costs to refurbish22one more of the Old Units (an arrangement similar to the Canal Plant23Agreement)? If not, why not?
- 24

25 **Response:**

26 FBC has not met with the City of Nelson about using the City of Nelson's generation to replace 27 FBC generation. This is not a viable option because if a FBC generating unit were to be 28 decommissioned, then the Company would lose the associated entitlement under the Canal 29 Plant Agreement. Under this scenario it is correct that a small amount of additional water would 30 then be available for City of Nelson generation, but this is likely true only for a few hours a year. 31 This is because the City of Nelson is typically at maximum generating capacity when the UBO 32 Old Plant is generating, such as during spring runoff when there is sufficient water available. 33 During the majority of the year, the City of Nelson would have excess generating capacity, but 34 there would not be sufficient water available to make use of the excess generating capacity, and 35 therefore any incremental generation at the City of Nelson as a result of decommissioning the 36 UBO Old Plant would be minimal.



1 4. Reference: Exhibit B-1, p. 45 and Appendix E, Draft Order:

The Ruckles Substation Rebuild Project and the Upper Bonnington Old Units 3 Refurbishment Project (UBO) were also determined by Order G-80-16 to be 4 outside of the formula for capital expenditures and eligible for flow-through treatment, subject to approval of the projects in the Annual Review process preceding the commencement of the project.

- 4.1 Is it FBC's position that Order G-80-16 is a Commission regulation as contemplated in section 45(4) of the UCA, and Order G-80-16 excludes these two projects from the operation of section 45(1) of the UCA? If not, please explain whether section 45(1) applies to the two projects in the absence of an order granted pursuant to section 45(4) of the UCA?
- 11 12

2

5

6 7

8

9

10

13 Response:

14 FBC is a public utility that has been operating since before September 11, 1980, and therefore 15 has a deemed CPCN pursuant to section 45(2) of the UCA. The Ruckles Substation Rebuild 16 Project and the Upper Bonnington Old Units Refurbishment Project do not exceed the CPCN 17 threshold set by Order G-120-15 and, in addition, Order G-80-16 makes it clear that a CPCN is 18 not required for the projects.

19 As discussed in FBC's Application for Approval of Treatment for Major Project Capital 20 Expenditures under the Multi-Year Performance Based Ratemaking Plan for 2014-2019, the 21 Ruckles Substation Rebuild Project and the Upper Bonnington Old Units Refurbishment Project 22 do not exceed the CPCN threshold set by the Commission for FBC in Order G-120-15. In Order 23 G-120-15 and Reasons for Decision issued on July 22, 2015, the Commission set a CPCN 24 threshold at \$20 million for FBC. The Commission also removed the non-financial criteria from 25 consideration and added additional criteria around combining projects. Specifically, at pages

- 26 12-13 of the Reasons for Decision, the Commission stated:
- 27 The Panel directs FortisBC to address, in every CPCN application, both the issue 28 of combining projects and whether the actual costs of the project exceed the 29 PBR threshold. FortisBC must demonstrate to the Commission that the project 30 applied for is not the result of combining smaller projects and that the actual 31 costs will fall above the capital exclusion threshold.
- 32 The estimated capital cost of the Ruckles Substation Rebuild Project is \$8,288 million, as shown 33 in Table 4-1 of Appendix 2C of the Application, which is below the \$20 million CPCN threshold.

34 The total estimated capital cost of the Upper Bonnington Old Units Refurbishment Project is \$31.783 million as shown in Table 5-1 of the Appendix 2D of the Application; however, this is a 35 result of combining four smaller projects, each of which are significantly less than the \$20 million 36

37 CPCN threshold. On pages 12 to 13 of FBC's Application for Approval of Treatment for Major



Project Capital Expenditures under the Multi-Year Performance Based Ratemaking Plan for
 2014-2019, FBC stated:

FBC confirms that although the total cost to refurbish the Old Plant exceeds the materiality threshold, each of the Old Unit refurbishments can be justified on its own merits and should be treated as a stand-alone project. This is consistent with the treatment of each unit previously undergoing upgrades or life extensions, as shown in Table 2 below, which also demonstrates that more than half of the ULE projects completed between 1998 and 2012 were approved without the need for a CPCN application.

10 [Table omitted.]

Further guidance, which is relevant to the refurbishment of the Old Units, was given in the decision accompanying Order G-193-15 regarding FortisBC Energy Inc.'s (FEI) Annual Review for 2016 Rates. Concerning the issue of whether the Fraser Gate Intermediate Pressure (IP) and Coquitlam Gate IP projects should be regarded as a single CPCN, as filed in the Lower Mainland Intermediate Pressure System Upgrade CPCN application, FEI acknowledged that each of the two projects could be justified on its own merits. The Panel concluded that:

- 18Whereas FEI has put forward a number of areas where costs can19be reduced by managing the projects in parallel, we are not
- 20 persuaded that these benefits arise from a common CPCN as 21 opposed to prudent management of two (arguably similar and/or 22 related) discrete projects.¹
- This history of FBC's ULE program demonstrates that the refurbishment of UBO
 Units 1 to 4 constitute separate projects, none of which individually meet the
 materiality threshold for CPCN Applications.

For this reason, the Upper Bonnington Old Units Refurbishment Project does not meet the CPCN threshold set by the Commission in Order G-120-15.

28 Commission Order G-80-16 also confirmed that a CPCN filing is not required for the Ruckles 29 Substation Rebuild Project and the Upper Bonnington Old Units Refurbishment Project. FBC 30 requested in its Application for Approval of Treatment for Major Project Capital Expenditures 31 under the Multi-Year Performance Based Ratemaking Plan for 2014-2019 that four projects be 32 filed for approval in the annual reviews and excluded from the CPCN requirement. The 33 Commission determined "that CPCN applications are required for the Grand Forks Transformer 34 Addition and Grand Forks to Warfield Fibre projects".² However, the Commission determined:

¹ Order G-193-15 and Decision, page 16.

² Page 5 of 5 of Appendix A to Order G-80-16.



1 The request for review in the PBR Annual Review is approved for the Upper 2 Bonnington Old Units Refurbishment project(s). FBC is directed to include 3 information in its business case that specifically addresses the timing of the four 4 units to be refurbished in terms of need and cost effectiveness.

5 The request for review in the PBR Annual Review is approved for the Ruckles 6 Substation Upgrade project provided a new location from the existing substation 7 is not required. Should a new location be required FBC is directed to file a CPCN for the project.³ 8

9 It is therefore clear that the Commission determined that a CPCN was not required for either the 10 Bonnington Old Units Refurbishment project(s) or Ruckles Substation Upgrade project, unless a 11 new location is required for the Ruckles substation. As set out in the filed business case for the 12 Ruckles Substation Upgrade project, FBC is not proposing a new location for the Ruckles substation.

- 13
- 14
- 15
- 16

17 4.2 Please confirm that Order G-80-16 does not contemplate a FBC request 18 pursuant to section 44.2 of the UCA for acceptance of capital expenditures for 19 the two projects? If confirmed, please explain why FBC is seeking acceptance of 20 the capital expenditures for these two projects pursuant to section 44.2 of the 21 UCA?

22

23 **Response:**

24 Order G-80-16 does not refer to FBC seeking acceptance pursuant to section 44.2 of the 25 Utilities Commission Act, but does direct FBC to seek approval of the two projects in the Annual Review, as follows: 26

27 FBC must seek approval of the Ruckles Substation Upgrade and Upper 28 Bonnington Old Units Refurbishment projects as part of the Performance Based 29 Ratemaking (PBR) Annual Review.

30 To facilitate the review and approval of these multi-year projects in this annual review as directed by the Commission, FBC is seeking Commission acceptance of the capital 31 32 expenditures for the two projects pursuant to section 44.2. Seeking acceptance of the capital 33 expenditures on the two projects pursuant to section 44.2 is a clear way for FBC to seek and 34 receive approval of the two projects in the Annual Review in compliance with Order G-80-16.

³ Page 5 of 5 of Appendix A to Order G-80-16. Bold in original.



- 1
- 2

5

6

7

- 4.3 Please explain why the cost estimate for the Ruckles Project has been developed to a Class 3 degree of accuracy and the cost estimate for the UBO has been developed to a Class 4 degree of accuracy?

8 **Response:**

9 The Commission's 2015 CPCN Application Guidelines specify a Class 3 degree of accuracy 10 estimate for CPCN applications. The cost estimate for the Ruckles Substation Rebuild Project 11 was developed to a Class 3 level of accuracy because at the time the estimate was developed

12 the Company had anticipated it may be required to file a CPCN application for the Project.

13 In FBC's Application for Approval of Treatment for Major Project Capital Expenditures under the 14 Multi-Year Performance Based Ratemaking Plan for 2014-2019, FBC proposed in part that the 15 Ruckles Substation Rebuild Project and Upper Bonnington Old Units Refurbishment project be 16 reviewed in the Annual Review process. FBC proposed a Class 4 degree of accuracy for the 17 business case review materials in the Annual Review. Commission Order G-80-16 approved 18 FBC's request for review in the Annual Review of the Ruckles Substation Rebuild Project and Upper Bonnington Old Units Refurbishment project(s).⁴ Consequently, FBC developed the cost 19 estimate for the Upper Bonnington Old Units Refurbishment project to meet the AACE Class 4 20 21 level of accuracy. 22

- 23
- 24
- 25
- Please confirm that FBC has not conducted public consultation for the two 26 4.4 27 projects as required by the CPCN Guidelines?
- 28 29 Response:
- 30 As explained in the response to ICG IR 1.4.1, Order G-80-16 confirms that a CPCN filing is not required for the Ruckles Substation Rebuild Project and the Upper Bonnington Old Units 31 32 Refurbishment Project. Since both projects are entirely contained within the existing footprints of the facilities, no broad public consultation was conducted. However, as explained in section 33 34 5 of Appendix C, the Company has discussed the Ruckles Substation Rebuild project with the City of Grand Forks municipal electric utility. With regard to both projects, Aboriginal Rights and 35

Appendix A to Order G-80-16, page 5.



- 1 Title will not be affected and hence First Nation Consultation is not required. As identified in
- 2 section 6 of Appendix D, FBC has discussed the UBO Old Units Refurbishment Project with
- 3 some local First Nations.



3

4

5 6

1 5. Reference: Exhibit B-1, p. 93:

FBC has updated its forecast of incremental costs associated with complying with Assessment Report No. 8 as described in Sections 6.3.4 and 7.2.2 of the Application. For 2017, FBC forecasts incremental costs of \$1.400 million, comprised of \$0.050 million in incremental O&M expense and an incremental \$1.350 million in capital expenditures.

5.1 Please provide a summary of actual and forecast costs associated with compliance with BC's MRS program, separated by capital and O&M for the years 2010 to 2020, and for actual costs, provide a comparison with the estimated cost.
For the estimated costs, please provide the reference to a Revenue Requirements or other proceeding exhibit where the estimate was stated.

12 13 <u>Response:</u>

- 14 The following table shows the actual O&M and capital expenditures associated with compliance
- 15 with MRS for 2010 to 2015 (the latest year of actual data that is available).

Actual MRS Expenditures (\$ thousands)			
<u>Year</u>	<u>0&M</u>	<u>Capital</u>	<u>Total</u>
2010	821	1,811	2,632
2011	1,219	872	2,091
2012	2,070	112	2,182
2013	1,858	-	1,858
2014	2,156	-	2,156
2015	2,370	-	2,370

16

FBC provides below the forecast O&M and capital expenditures that were approved by the Commission. The table includes amounts from 2010 through 2013 when FBC had forecasts that were approved in revenue requirement proceedings, the cost related to the 2015 Audit that were approved to be flowed through outside of the O&M formula, and also the 2016 MRS

expenditures that were approved for Z factor treatment and the 2017 MRS expenditures that
 FBC has proposed for Z factor treatment.

Future costs will be dependent on the strategies and solutions being evaluated and implemented to comply with Assessment Report No. 8. The 2018 and future ongoing cost estimates will be revised and submitted in future Annual Reviews. Notwithstanding this, the current estimate is projected to be approximately \$0.550 million in 2018 and beyond with the increase primarily due to projected software/hardware licensing fees. In addition, FBC will undergo an MRS audit during 2018 and will include a forecast expense in its Annual Review for 2018 Rates.



FortisBC Inc. (FBC or the Company) Multi-Year Performance Based Ratemaking Plan for 2014 through 2019 Annual Review for 2017 Rates (the Application)	Submission Date: September 28, 2016
Response to Industrial Customers Group (ICG) Information Request (IR) No. 1	Page 13

Forecast/Approved MRS Expenditures (\$ thousands)				
Year	<u>0&M</u>	<u>Capital</u>	<u>Total</u>	Proceeding
2010	1,017	2,399	3,416	2010 RRA
2011	1,050	595	1,645	2011 RRA
2012	2,054	-	2,054	2012-2013 RRA; 2012 Deferral AccountApplication
2013	2,087	-	2,087	2012-2013 RRA; 2012 Deferral AccountApplication
2014	-	-	-	N/A
2015	-	-	-	Annual Review for 2015 Raes
2016	455	-	455	Annual Review for 2016 Rates
2017	50	1,350	1,400	Annual Review for 2017 Rates
2018	550		550	
2019	550		550	
2020	550		550	

andituras (Śthousands)



1 6. Reference: Exhibit B-1, p. 114:

Generator Forced Outage Rate (GFOR), an informational indicator, is a measure of 3 the percentage of time in one year that the generating units experienced forced outages compared to the amount of time they could have operated without a 4 forced outage.

- 6.1 Please provide the number of actual running hours, forced outage hours, and idle hours (ready for service) in each of the last 3 years for each of FBC's generating units. If available, please provide comparisons to actual generating running hours upon which the comparable CEA statistics are based.
- 9 10

2

5

6

7

8

11 Response:

12 The generator actual running hours, forced outage hours, and idle hours (ready for service) in each of the last 3 years for each of FBC's generating units are presented in the three tables 13 14 below.

15 The generator forced outage hours does not include forced outage hours which were caused by 16 events external to FBC.

17

Generator Actual Running Hours

	2013	2014	2015
LBO – Unit 1	6021.97	8397.83	6660.03
LBO – Unit 2	7356.27	7279.43	6433.33
LBO – Unit 3	6397.08	5589.48	5286.43
UBO – Unit 1	2108.62	3367.20	613.78
UBO – Unit 2	2098.12	3734.40	717.13
UBO – Unit 3	0.00	29.43	675.75
UBO – Unit 4	1967.62	2777.65	480.05
UBO – Unit 5	5622.32	7405.52	7402.77
UBO – Unit 6	5335.10	4952.63	3575.93
SLC – Unit 1	4742.35	3722.02	4272.85
SLC – Unit 2	8631.33	8605.85	7440.60
SLC – Unit 3	6403.87	8369.48	6438.52
COR – Unit 1	8680.10	6189.76	4752.40
COR – Unit 2	4615.24	7155.42	7975.43
COR – Unit 3	5622.72	7456.07	4927.68



FortisBC Inc. (FBC or the Company) Multi-Year Performance Based Ratemaking Plan for 2014 through 2019 Annual Review for 2017 Rates (the Application)	Submission Date: September 28, 2016
Response to Industrial Customers Group (ICG) Information Request (IR) No. 1	Page 15

Generator Forced Outage Hours

	2013	2014	2015
LBO – Unit 1	3.88	0.00	6.02
LBO – Unit 2	0.00	0.00	0.12
LBO – Unit 3	2.60	2.28	1.67
UBO – Unit 1	5.10	1.82	7.43
UBO – Unit 2	5.97	66.17	3.27
UBO – Unit 3	0.00	0.00	1.68
UBO – Unit 4	6.38	3.48	3.42
UBO – Unit 5	1.05	1.73	3.90
UBO – Unit 6	8.08	0.85	0.28
SLC – Unit 1	0.87	824.50	3.73
SLC – Unit 2	2.28	75.88	2.15
SLC – Unit 3	0.00	53.68	0.00
COR – Unit 1	8.78	0.30	14.63
COR – Unit 2	4120.78	422.77	0.10
COR – Unit 3	0.00	1.22	3.15

Generator Idle Hours

	2013	2014	2015
LBO – Unit 1	2649.68	252.92	1966.75
LBO – Unit 2	1305.22	918.50	2226.20
LBO – Unit 3	2276.12	3067.10	3396.13
UBO – Unit 1	6643.87	4948.50	7318.67
UBO – Unit 2	6546.13	4824.98	7938.68
UBO – Unit 3	2167.65	0.00	6201.05
UBO – Unit 4	6785.98	5134.57	8174.63
UBO – Unit 5	2909.93	1251.87	1239.93
UBO – Unit 6	3384.75	3606.43	5080.97
SLC – Unit 1	4016.77	4131.50	4319.43
SLC – Unit 2	119.68	0.00	1203.77
SLC – Unit 3	2356.12	257.23	2130.15
COR – Unit 1	0.00	2159.82	3884.45
COR – Unit 2	15.17	933.63	230.90
COR – Unit 3	3051.77	1206.93	3020.17



- 1 FBC notes that the actual generating running hours for generator units which are not owned by
- 2 FBC are not available as this information is proprietary to CEA. Therefore the requested
- 3 comparison cannot be made.