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June 8, 2017

Andy Shadrack Box 484 Kaslo, BC V0G 1M0

Attention: Mr. Andy Shadrack

Dear Mr. Shadrack:

Re: FortisBC Inc. (FBC)

**Project No. 3698896** 

2016 Long Term Electric Resource Plan (LTERP) and Long Term Demand Side Management Plan (LT DSM Plan)

FBC Information Request (IR) No. 1 on Intervener Evidence from Mr. Andy Shadrack (Shadrack)

In accordance with the Regulatory Timetable set by the British Columbia Utilities Commission Order G-197-16, attached is FBC IR No. 1 on the Intervener Evidence filed by Mr. Shadrack on the above noted Application.

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



FortisBC Inc. (FBC or the Company) 2016 Long Term Electric Resource Plan (LTERP) and Long Term Demand Side Management (LT DSM) Plan	Submission Date: June 8, 2017
FBC Information Request (IR) No. 1 to Mr. Andy Shadrack (Shadrack)	Page 1

# 1.0 Reference: Modified Table 8-1: FBC Demand-Side and Supply-Side Resource Options

### Exhibit C10-6, page 1

Mr. Shadrack provides a modified version of Table 8-1 from the LTERP that includes the addition of items related to four of FBC's Net Metering (solar PV) customers in Kaslo, B.C. and FBC's proposed Community Solar Pilot Project facility.

Modified Table 8-1: FBC Demand-Side and Supply-Side Resource Options

	Options	
Resource Option	Unit Energy Cost (\$MWh)	Unit Capacity Costs (\$KW-year)
PPA Tranche 1 Energy	\$46	N/A
PPA Capacity	N/A	\$96 - \$115
Gas - Fired Generation (SCGT)	N/A	\$80 - \$143
Market Purchases	\$38	\$169 -\$355
Kaslo NM#1 – 12 kW Solar PV*	\$65	(\$1,333)
Kaslo NM #2 – 8.1 kW Solar PV*	\$95	(\$1,728)
Pumped Hydro Storage	N/A	\$217
Gas - Fired Generation (CCGT)	\$82 - \$100	\$147 - \$279
Biogas	\$77 - \$101	\$621 - \$838
PPA Tranche 2 Energy	\$85 - \$130	N/A
Municipal Solid Waste	\$134	\$1,031
Onshore Wind	\$111 - \$145	\$1,219 - \$1,618
Run - of - River Hydro	\$87 - \$150	\$1,230 - \$1,924
Kaslo NM #4 – 7 kW Solar PV*	\$175	(\$2,570)
Solar	\$169 - \$184	\$1,399 - \$1,413
Wood - Based Biomass	\$118 - \$188	\$663 - \$774
Similkameen Hydro Project	\$202	\$1,298
Geothermal	\$132 - \$217	\$857 - \$1,506
FortisBC Ellison Solar Garden**	\$463	\$670
Kaslo NM #3 – 6 kW Solar PV	N/A	(\$2,333)

- 1.1 Please provide the calculations used to determine the unit energy and unit capacity costs of the four solar PV facilities that were added to the referenced table, including all assumptions regarding capital costs, variable costs, credits from NM production, discount rates and other relevant items.
  - 1.1.1 Please explain why there is no unit energy cost provided for the Kaslo NM#3 6 kW Solar PV facility.



FortisBC Inc. (FBC or the Company) 2016 Long Term Electric Resource Plan (LTERP) and Long Term Demand Side Management (LT DSM) Plan	Submission Date: June 8, 2017
FBC Information Request (IR) No. 1 to Mr. Andy Shadrack (Shadrack)	Page 2

1.2 Please provide the calculation used to determine the unit energy and capacity costs for the Community Solar Pilot Project (Ellison), including all assumptions regarding capital and operating costs, depreciation, discount rate and other relevant items.

### 2.0 Reference: Solar Production, Transfers and Total Use as a Function of FBC Grid Purchase

#### Exhibit C10-6, page 3

- 2.1 Please explain the information provided on page 3. Specifically, what is meant by "FBC purchases", "Solar production", "Solar transfers", "Solar use" and "Total use".
  - 2.1.1 What do the percentages represent and how are they calculated?

# 3.0 Reference: Page 5: Twelve Best Solar Production Days in January and February 2017

#### Exhibit C10-6, page 5

The table on page 5 shows Mr. Shadrack's solar PV daily production for 12 days in January and February 2017.

- 3.1 Please provide a table of approximate sunset times in Kaslo for the period of November 15 through February 15.
- 3.2 What is the estimated production of the solar panels at the expected time of FBC's winter peak, which is usually between the hours of 5 and 6 pm?