

REDACTED (CONFIDENTIAL INFORMATION REMOVED)

2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)
NSPI Responses to Consumer Advocate Information Requests

NON-CONFIDENTIAL

Request IR-1:

Reference p. 10, ll. 5-7.

(a) Please explain in detail how the fuel stability strategy will reduce the exposure to variable fuel costs.

(b) Please explain in detail how the hedge plan will ensure that least-cost hedge strategies are being used.

(c) Does NS Power intend to seek Board approval of specific hedge amounts or contract types before or during the Rate Stability Period? If so, please describe NS Power's plans for filing for Board authorization once the specific hedge strategies have been devised.

Response IR-1:

(a) As detailed in Confidential Appendix D (NS Power Fuel Hedging Plan), the Company has proposed a hedging plan that is designed to provide greater fuel cost stability during the Rate Stability Period. It is intended to reduce the variability of fuel costs while ensuring the Company maintains flexibility among the fuels portfolio. During the Rate Stability Period, NS Power will hedge 75-100% of expected fuel requirements using a portfolio of physical and financial contracts. For fixed price physical contracts, NS Power knows at the time of contract execution what it will pay for the purchased fuel, thereby eliminating exposure to variable market pricing. For financial hedges, the gain or loss from these contracts will offset higher or lower prices that the Company will pay for the underlying physical fuel. When market prices rise, the financial contracts will increase in value thereby offsetting higher market prices for the physical fuel. When market prices fall, the financial hedges will result in losses, but the underlying physical commodity will be purchased at the lower market price. Therefore, NS Power and its

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1 customers are less exposed to variable market prices regardless of the direction of price
2 movements. Not all risks can be hedged, however, the overall magnitude of changes in
3 total fuel & purchased power costs that would result from changes in market prices will
4 be reduced through the implementation of NS Power's Fuel Stability Plan.

5
6 (b) The objective of hedging is to provide fuel cost stability for customers, and does not
7 guarantee the lowest cost portfolio will be achieved. The direct costs of hedging with
8 forwards, futures, and swaps are brokerage costs, exchange fees, and the carrying cost of
9 posted margin. Other hedging products, such as options, have a higher cost due to the
10 initial option premium that is paid by the buyer, generally at inception of the hedge. NS
11 Power may make limited use of options within its portfolio, however, it intends to
12 primarily use the lower-cost items listed above. NS Power will only hedge when it is
13 cost effective to do so and will ensure that only reasonable costs are incurred in the
14 execution of its hedges.

15
16 (c) Please refer to NSUARB IR-12.

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Request IR-2:

Reference p. 22, Figure 1.

- (a) Please provide in an electronic spreadsheet, with all cell formulas and file linkages intact, a revised version of Figure 1 reflecting the correction described in NS Power's March 21, 2016 letter to the UARB. Please provide copies of all linked spreadsheet files.
- (b) Please provide copies of all workpapers, including electronic spreadsheets with cell formulas and file linkages intact, relied on to derive the revised version of Figure 1.
- (c) Please provide copies of all workpapers, including electronic spreadsheets with cell formulas and file linkages intact, relied on to derive the smoothed percentage increase over the Rate Stability Period for each rate class from the forecast of unsmoothed annual percentage increases during the Rate Stability Period.
- (d) Please state whether the values shown in the revised Figure 1 represent percentage changes in base cost of fuel revenues, base energy and (where applicable) demand revenues, or total base revenues inclusive of customer-charge revenues (where applicable).
- (e) Please state whether the values shown in the revised Figure 1 for the year 2020 reflect the estimated impact of deferring recovery or reimbursement of 2016 AA and BA amounts until 2020. If so, please provide copies of all workpapers, including electronic spreadsheets with cell formulas and file linkages intact, relied on to derive the estimates of the 2016 AA and BA amounts recovered or reimbursed in 2020.

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1 Response IR-2:

2
3 (a-c) Please refer to Partially Confidential Attachments 1 and 2.

4
5 (d) The values shown in revised Figure 1 represent percentage changes in total base revenues
6 inclusive of customer charge revenues where applicable.

7
8 (e) The values shown in revised Figure 1 for the year 2020 do not reflect the impact of
9 deferring recovery or reimbursement of 2016 AA and BA amounts until 2020. At this
10 point the Company projects the imbalance in recovery of 2016 AA and BA amounts to be
11 zero. Any actual imbalances in recovery of 2016 AA and BA will be addressed in the
12 FAM AA/BA proceeding in the fall of 2016. Please refer to CA IR-4 and NSDOE IR-3.

2017 REVENUE ANALYSIS																					
Rate Classes	2017 Sales (GWh's)	Revenues at 2016 rates						Revenues at 2017 rates						Revenue Variance				Revenue % Var			
		Base Cost Rates	FAM AA Riders	FAM AA	FAM BA Riders	FAM BA	Total	Base Cost Rates	2016 BCF	2017 BCF	FAM AA	FAM BA	Total	Base Cost Rates	FAM AA	FAM BA	Total	Base Cost Rates	FAM AA	FAM BA	Total
FAM Classes																					
Residential	4,508.9	\$706,283,379	0.367	\$16,547,747	0.213	(\$9,604,006)	\$713,227,121	\$723,989,488	5.364	5.756	-	-	\$723,989,488	\$17,706,108	(\$16,547,747)	\$9,604,006	\$10,762,367	2.5%	-2.3%	1.3%	1.5%
Small General	262.7	\$40,263,949	0.308	\$809,030	0.308	(\$809,030)	\$40,263,949	\$40,904,272	5.526	5.770	-	-	\$40,904,272	\$640,323	(\$809,030)	\$809,030	\$640,323	1.6%	-2.0%	2.0%	1.6%
General Demand	2,424.7	\$309,962,227	0.271	\$6,570,962	0.089	(\$2,157,991)	\$314,375,198	\$315,992,597	5.258	5.507	-	-	\$315,992,597	\$6,030,370	(\$6,570,962)	\$2,157,991	\$1,617,399	1.9%	-2.1%	0.7%	0.5%
Large General ⁽¹⁾	415.6	\$46,006,829	0.007	\$29,089	0.026	(\$108,046)	\$45,927,873	\$47,606,312	5.002	5.387	-	-	\$47,606,312	\$1,599,482	(\$29,089)	\$108,046	\$1,678,439	3.5%	-0.1%	0.2%	3.7%
Total Commercial	3,102.9	\$396,233,006		\$7,409,081		(\$3,075,067)	\$400,567,020	\$404,503,181			-	-	\$404,503,181	\$8,270,175	(\$7,409,081)	\$3,075,067	\$3,936,161	2.1%	-1.8%	0.8%	1.0%
Small Industrial	256.6	\$32,637,400	0.211	\$541,492	0.109	(\$279,728)	\$32,899,163	\$33,179,305	5.175	5.386	-	-	\$33,179,305	\$541,905	(\$541,492)	\$279,728	\$280,141	1.6%	-1.6%	0.9%	0.9%
Medium Industrial	475.6	\$53,564,445	0.016	\$76,099	0.018	\$85,611	\$53,726,156	\$54,509,767	4.928	5.127	-	-	\$54,509,767	\$945,322	(\$76,099)	(\$85,611)	\$783,611	1.8%	-0.1%	-0.2%	1.5%
Large Industrial																					
Firm	127.3	\$12,966,722	0.011	\$14,006	0.117	\$148,977	\$13,129,705	\$13,273,203	4.807	5.048	-	-	\$13,273,203	\$306,481	(\$14,006)	(\$148,977)	\$143,498	2.3%	-0.1%	-1.1%	1.1%
Interruptible	652.9	\$62,081,322	0.011	\$71,822	0.097	\$633,336	\$62,786,480	\$63,669,273	4.807	5.050	-	-	\$63,669,273	\$1,587,951	(\$71,822)	(\$633,336)	\$882,793	2.5%	-0.1%	-1.0%	1.4%
Large Industrial Total	780.3	\$75,048,045	0.011	\$85,828	0.097	\$782,312	\$75,916,185	\$76,942,476	4.807		-	-	\$76,942,476	\$1,894,431	(\$85,828)	(\$782,312)	\$1,026,291	2.5%	-0.1%	-1.0%	1.4%
Total Industrial	1,512.5	\$161,249,889		\$703,419		\$588,196	\$162,541,504	\$164,631,548			-	-	\$164,631,548	\$3,381,659	(\$703,419)	(\$588,196)	\$2,090,044	2.1%	-0.4%	-0.4%	1.3%
Municipal	177.8	\$20,322,188	0.331	\$588,545	0.142	(\$252,488)	\$20,658,246	\$20,914,608	4.998	5.332	-	-	\$20,914,608	\$592,420	(\$588,545)	\$252,488	\$256,362	2.9%	-2.8%	1.2%	1.2%
Unmetered ⁽²⁾	103.7	\$21,932,109	0.222	\$230,257	0.221	(\$229,220)	\$21,933,146	\$22,089,781	5.301	5.453	-	-	\$22,089,781	\$157,672	(\$230,257)	\$229,220	\$156,634	0.7%	-1.0%	1.0%	0.7%
Total Other	281.5	\$42,254,297		\$818,802		(\$481,707)	\$42,591,392	\$43,004,388			-	-	\$43,004,388	\$750,091	(\$818,802)	\$481,707	\$412,997	1.8%	-1.9%	1.1%	1.0%
Total FAM Classes	9,405.9	\$1,306,020,572		\$25,479,049		(\$12,572,585)	\$1,318,927,037	\$1,336,128,605			-	-	\$1,336,128,605 2.31%	\$30,108,033	(\$25,479,049)	\$12,572,585	\$17,201,568	2.3%	-1.9%	1.0%	1.3%
BTL																					
GRLF																					
1P-RTP																					
Shore Power																					
LRT																					
Total BTL Classes	1,093.0	\$65,698,399		\$0		\$0	\$65,698,399	\$65,698,399	4.705	5.509	-	-	\$65,698,399	\$0	\$0	\$0	\$0	0%	0%	0%	0%
In Province Total	10,498.9	\$1,371,718,971		\$25,479,049		(\$12,572,585)	\$1,384,625,436	\$1,401,827,004			-	-	\$1,401,827,004	\$30,108,033	(\$25,479,049)	\$12,572,585	\$17,201,568	2.2%	-1.8%	0.9%	1.2%
Export	48.5	\$2,266,650		\$0		\$0	\$2,266,650	\$2,266,650			-	-	\$2,266,650	\$0	\$0	\$0	\$0	0.0%	0.0%	0.0%	0.0%
Total Electric Sales	10,547.4	\$1,373,985,621		\$25,479,049		(\$12,572,585)	\$1,386,892,086	\$1,404,093,654	5.191	4.980	-	-	\$1,404,093,654	\$30,108,033	(\$25,479,049)	\$12,572,585	\$17,201,568	2.2%	-1.8%	0.9%	1.2%

2018 REVENUE ANALYSIS																					
Rate Classes	2018 Sales (GWh's)	Revenues at 2017 rates					Revenues at 2018 rates					Revenue Variance				Revenue % Var					
		Base Cost Rates	FAM AA Riders	FAM AA	FAM BA Riders	FAM BA	Total	Base Cost Rates	2017 BCF	2018 BCF EEC	FAM AA	FAM BA	Total	Base Cost Rates	FAM AA	FAM BA	Total	Base Cost Rates	FAM AA	FAM BA	Total
FAM Classes																					
Residential	4,549.4	\$729,961,088		-		-	\$729,961,088	\$740,975,966	5.756	5.998	-	-	\$740,975,966	\$11,014,877	-	-	\$11,014,877	1.5%	0.0%	0.0%	1.5%
Small General	262.3	\$40,874,443		-		-	\$40,874,443	\$41,524,474	5.770	6.018	-	-	\$41,524,474	\$650,031	-	-	\$650,031	1.6%	0.0%	0.0%	1.6%
General Demand	2,413.1	\$314,476,448		-		-	\$314,476,448	\$316,094,368	5.507	5.574	-	-	\$316,094,368	\$1,617,920	-	-	\$1,617,920	0.5%	0.0%	0.0%	0.5%
Large General ⁽¹⁾	412.7	\$47,360,592		-		-	\$47,360,592	\$49,091,390	5.387	5.807	-	-	\$49,091,390	\$1,730,798	-	-	\$1,730,798	3.7%	0.0%	0.0%	3.7%
Total Commercial	3,088.1	\$402,711,483		-		-	\$402,711,483	\$406,710,233			-	-	\$406,710,233	\$3,998,749	-	-	\$3,998,749	1.0%	0.0%	0.0%	1.0%
Small Industrial	256.2	\$33,120,240		-		-	\$33,120,240	\$33,402,264	5.386	5.496	-	-	\$33,402,264	\$282,024	-	-	\$282,024	0.9%	0.0%	0.0%	0.9%
Medium Industrial ⁽¹⁾	479.1	\$54,906,432		-		-	\$54,906,432	\$55,707,258	5.127	5.294	-	-	\$55,707,258	\$800,826	-	-	\$800,826	1.5%	0.0%	0.0%	1.5%
Large Industrial ⁽¹⁾																					
Firm	126.3	\$13,190,129		-		-	\$13,190,129	\$13,334,288	5.048	5.162	-	-	\$13,334,288	\$144,158	-	-	\$144,158	1.1%	0.0%	0.0%	1.1%
Interruptible	667.0	\$65,164,542		-		-	\$65,164,542	\$66,080,771	5.050	5.188	-	-	\$66,080,771	\$916,229	-	-	\$916,229	1.4%	0.0%	0.0%	1.4%
Large Industrial Total	793.3	\$78,354,671		-		-	\$78,354,671	\$79,415,059	-		-	-	\$79,415,059	\$1,060,388	-	-	\$1,060,388	1.4%	0.0%	0.0%	1.4%
Total Industrial	1,528.6	\$166,381,344		-		-	\$166,381,344	\$168,524,581			-	-	\$168,524,581	\$2,143,237	-	-	\$2,143,237	1.3%	0.0%	0.0%	1.3%
Municipal	178.0	\$20,927,144		-		-	\$20,927,144	\$21,186,843	5.332	5.478	-	-	\$21,186,843	\$259,699	-	-	\$259,699	1.2%	0.0%	0.0%	1.2%
Unmetered ⁽²⁾	101.9	\$21,889,632		-		-	\$21,889,632	\$22,047,148	5.453	5.607	-	-	\$22,047,148	\$157,516	-	-	\$157,516	0.7%	0.0%	0.0%	0.7%
Total Other	279.9	\$42,816,776		-		-	\$42,816,776	\$43,233,991			-	-	\$43,233,991	\$417,215	-	-	\$417,215	1.0%	0.0%	0.0%	1.0%
Total FAM Classes	9,445.9	\$1,341,870,691		-		-	\$1,341,870,691	\$1,359,444,770			-	-	\$1,359,444,770	\$17,574,079	-	-	\$17,574,079	1.3%	0.0%	0.0%	1.3%
BTL																					
GRLF																					
1P-RTP																					
Shore Power																					
LRT																					
Total BTL Classes	1,092.962	\$55,745,572		-		-	\$55,745,572	\$55,745,572	5.509	4.598	-	-	\$55,745,572	\$0	-	-	\$0	0%	0%	0%	0%
In Province Total	10,538.9	\$1,397,616,263		-		-	\$1,397,616,263	\$1,415,190,342			-	-	\$1,415,190,342	\$17,574,079	-	-	\$17,574,079	1.3%	0.0%	0.0%	1.3%
Export	50.0	\$2,616,861		-		-	\$2,616,861	\$2,616,861			-	-	\$2,616,861	\$0	-	-	\$0	0.0%	0.0%	0.0%	0.0%
Total Electric Sales	10,588.9	\$1,400,233,124		-		-	\$1,400,233,124	\$1,417,807,203	4.980	6.323	-	-	\$1,417,807,203	\$17,574,079	-	-	\$17,574,079	1.3%	0.0%	0.0%	1.3%

2019 REVENUE ANALYSIS																					
Rate Classes	2019 Sales (GWh's)	Revenues at 2018 rates					Revenues at 2019 rates					Revenue Variance				Revenue % Var					
		Base Cost Rates	FAM AA Riders	FAM AA	FAM BA Riders	FAM BA	Total	Base Cost Rates	2018 BCF	2019 BCF EEC	FAM AA	FAM BA	Total	Base Cost Rates	FAM AA	FAM BA	Total	Base Cost Rates	FAM AA	FAM BA	Total
FAM Classes																					
Residential	4,583.1	\$746,039,914	-		-		\$746,039,914	\$757,297,416	5.998	6.244	-	-	\$757,297,416	\$11,257,502	-	-	\$11,257,502	1.5%	0.0%	0.0%	1.5%
Small General	262.1	\$41,522,336	-		-		\$41,522,336	\$42,182,671	6.018	6.270	-	-	\$42,182,671	\$660,335	-	-	\$660,335	1.6%	0.0%	0.0%	1.6%
General Demand	2,404.7	\$314,992,968	-		-		\$314,992,968	\$316,613,546	5.574	5.641	-	-	\$316,613,546	\$1,620,578	-	-	\$1,620,578	0.5%	0.0%	0.0%	0.5%
Large General ⁽¹⁾	409.9	\$48,833,742	-		-		\$48,833,742	\$50,618,376	5.807	6.242	-	-	\$50,618,376	\$1,784,634	-	-	\$1,784,634	3.7%	0.0%	0.0%	3.7%
Total Commercial	3,076.6	\$405,349,047	-		-		\$405,349,047	\$409,414,594			-	-	\$409,414,594	\$4,065,547	-	-	\$4,065,547	1.0%	0.0%	0.0%	1.0%
Small Industrial	256.0	\$33,383,510	-		-		\$33,383,510	\$33,667,775	5.496	5.607	-	-	\$33,667,775	\$284,265	-	-	\$284,265	0.9%	0.0%	0.0%	0.9%
Medium Industrial ⁽¹⁾	481.6	\$56,000,014	-		-		\$56,000,014	\$56,816,790	5.294	5.464	-	-	\$56,816,790	\$816,776	-	-	\$816,776	1.5%	0.0%	0.0%	1.5%
Large Industrial ⁽¹⁾																					
Firm	125.3	\$13,250,039	-		-		\$13,250,039	\$13,394,852	5.162	5.277	-	-	\$13,394,852	\$144,813	-	-	\$144,813	1.1%	0.0%	0.0%	1.1%
Interruptible	666.9	\$66,073,737	-		-		\$66,073,737	\$67,002,750	5.188	5.327	-	-	\$67,002,750	\$929,013	-	-	\$929,013	1.4%	0.0%	0.0%	1.4%
Large Industrial Total	792.2	\$79,323,776	-		-		\$79,323,776	\$80,397,602	-		-	-	\$80,397,602	\$1,073,826	-	-	\$1,073,826	1.4%	0.0%	0.0%	1.4%
Total Industrial	1,529.8	\$168,707,300	-		-		\$168,707,300	\$170,882,168			-	-	\$170,882,168	\$2,174,868	-	-	\$2,174,868	1.3%	0.0%	0.0%	1.3%
Municipal	172.1	\$20,700,322	-		-		\$20,700,322	\$20,957,207	5.478	5.627	-	-	\$20,957,207	\$256,884	-	-	\$256,884	1.2%	0.0%	0.0%	1.2%
Unmetered ⁽²⁾	100.9	\$21,953,369	-		-		\$21,953,369	\$22,110,329	5.607	5.763	-	-	\$22,110,329	\$156,960	-	-	\$156,960	0.7%	0.0%	0.0%	0.7%
Total Other	273.0	\$42,653,691	-		-		\$42,653,691	\$43,067,536			-	-	\$43,067,536	\$413,845	-	-	\$413,845	1.0%	0.0%	0.0%	1.0%
Total FAM Classes	9,462.5	\$1,362,749,953	-		-		\$1,362,749,953	\$1,380,661,713			-	-	\$1,380,661,713	\$17,911,761	-	-	\$17,911,761	1.3%	0.0%	0.0%	1.3%
BTL GRLF 1P-RTP Shore Power LRT																					
Total BTL Classes	1,093.0	\$56,830,072	-		-		\$56,830,072	\$56,830,072	4.598	4.697	-	-	\$56,830,072	\$0	-	-	\$0	0%	0%	0%	0%
In Province Total	10,555.5	\$1,419,580,024	-		-		\$1,419,580,024	\$1,437,491,785			-	-	\$1,437,491,785	\$17,911,761	-	-	\$17,911,761	1.3%	0.0%	0.0%	1.3%
Export	47.0	\$2,758,318	-		-		\$2,758,318	\$2,758,318			-	-	\$2,758,318	\$0	-	-	\$0	0.0%	0.0%	0.0%	0.0%
Total Electric Sales	10,602.5	\$1,422,338,342	-		-		\$1,422,338,342	\$1,440,250,103	6.323	6.403	-	-	\$1,440,250,103	\$17,911,761	-	-	\$17,911,761	1.3%	0.0%	0.0%	1.3%

2020 REVENUE ANALYSIS																					
Rate Classes	2019 Sales (GWh's)	Revenues at 2019 rates					Revenues at 2020 rates					Revenue Variance				Revenue % Var					
		Base Cost Rates	FAM AA Riders	FAM AA	FAM BA Riders	FAM BA	Total	Base Cost Rates	2019 BCF	2020 BCF EEC	FAM AA	FAM BA	Total	Base Cost Rates	FAM AA	FAM BA	Total	Base Cost Rates	FAM AA	FAM BA	Total
FAM Classes																					
Residential	4,629.4	\$764,425,506	-		-		\$764,425,506	\$813,223,761	6.244	7.298	-	-	\$813,223,761	\$48,798,255	-	-	\$48,798,255	6.4%	0.0%	0.0%	6.4%
Small General	263.4	\$42,402,763	-		-		\$42,402,763	\$44,520,659	6.270	7.074	-	-	\$44,520,659	\$2,117,896	-	-	\$2,117,896	5.0%	0.0%	0.0%	5.0%
General Demand	2,408.3	\$317,088,704	-		-		\$317,088,704	\$344,165,756	5.641	6.766	-	-	\$344,165,756	\$27,077,052	-	-	\$27,077,052	8.5%	0.0%	0.0%	8.5%
Large General ⁽¹⁾	407.0	\$50,349,594	-		-		\$50,349,594	\$50,931,912	6.242	6.385	-	-	\$50,931,912	\$582,318	-	-	\$582,318	1.2%	0.0%	0.0%	1.2%
Total Commercial	3,078.7	\$409,841,062	-		-		\$409,841,062	\$439,618,328			-	-	\$439,618,328	\$29,777,266	-	-	\$29,777,266	7.3%	0.0%	0.0%	7.3%
Small Industrial	256.3	\$33,701,244	-		-		\$33,701,244	\$36,511,958	5.607	6.704	-	-	\$36,511,958	\$2,810,714	-	-	\$2,810,714	8.3%	0.0%	0.0%	8.3%
Medium Industrial ⁽¹⁾	482.3	\$56,895,967	-		-		\$56,895,967	\$60,856,827	5.464	6.285	-	-	\$60,856,827	\$3,960,860	-	-	\$3,960,860	7.0%	0.0%	0.0%	7.0%
Large Industrial ⁽¹⁾																					
Firm	124.2	\$13,309,809	-		-		\$13,309,809	\$14,314,164	5.277	6.086	-	-	\$14,314,164	\$1,004,354	-	-	\$1,004,354	7.5%	0.0%	0.0%	7.5%
Interruptible	663.8	\$66,756,139	-		-		\$66,756,139	\$71,794,221	5.327	6.086	-	-	\$71,794,221	\$5,038,082	-	-	\$5,038,082	7.5%	0.0%	0.0%	7.5%
Large Industrial Total	788.1	\$80,065,948	-		-		\$80,065,948	\$86,108,385	-		-	-	\$86,108,385	\$6,042,437	-	-	\$6,042,437	7.5%	0.0%	0.0%	7.5%
Total Industrial	1,526.6	\$170,663,159	-		-		\$170,663,159	\$183,477,170			-	-	\$183,477,170	\$12,814,011	-	-	\$12,814,011	7.5%	0.0%	0.0%	7.5%
Municipal	160.9	\$19,998,777	-		-		\$19,998,777	\$21,609,582	5.627	6.628	-	-	\$21,609,582	\$1,610,805	-	-	\$1,610,805	8.1%	0.0%	0.0%	8.1%
Unmetered ⁽²⁾	100.9	\$22,142,328	-		-		\$22,142,328	\$23,337,916	5.763	6.948	-	-	\$23,337,916	\$1,195,588	-	-	\$1,195,588	5.4%	0.0%	0.0%	5.4%
Total Other	261.7	\$42,141,104	-		-		\$42,141,104	\$44,947,498			-	-	\$44,947,498	\$2,806,394	-	-	\$2,806,394	6.7%	0.0%	0.0%	6.7%
Total FAM Classes	9,496.5	\$1,387,070,831	-		-		\$1,387,070,831	\$1,481,266,756			-	-	\$1,481,266,756	\$94,195,926	-	-	\$94,195,926	6.8%	0.0%	0.0%	6.8%
BTL																					
GRLF																					
1P-RTP																					
Shore Power																					
LRT																					
Total BTL Classes	1,093.0	\$55,589,552	-		-		\$55,589,552	\$55,589,552	4.697	4.584	-	-	\$55,589,552	\$0	-	-	\$0	0%	0%	0%	0%
In Province Total	10,589.5	\$1,442,660,382	-		-		\$1,442,660,382	\$1,536,856,308			-	-	\$1,536,856,308	\$94,195,926	-	-	\$94,195,926	6.5%	0.0%	0.0%	6.5%
Export	50.0	\$3,279,932	-		-		\$3,279,932	\$3,279,932			-	-	\$3,279,932	\$0	-	-	\$0	0.0%	0.0%	0.0%	0.0%
Total Electric Sales	10,639.5	\$1,445,940,314	-		-		\$1,445,940,314	\$1,540,136,240	6.403	6.661	-	-	\$1,540,136,240	\$94,195,926	-	-	\$94,195,926	6.5%	0.0%	0.0%	6.5%

REDACTED (CONFIDENTIAL INFORMATION REMOVED)

WACC			7.78%																				
2016 Rates	2014 Rate Base	2016										2017											
		Sales (GWh)	BCF		Rate Stability Fund								Sales (GWh)	BCF		Rate Stability Fund							
		Amount	%	Requirement	Recovery at 2016 Rates	Year-beginning	Contribution from BCF Recovery	Deferred FAM	DSM RSA Adjustment	Additional Cash Taxes	Year-end bfr Interest	Interest	Requirement	Recovery at 2016 Rates	Year-beginning	Contribution from BCF Recovery	Deferred FAM	DSM RSA Adjustment	Additional Cash Taxes	Year-end bfr Interest	Interest		
	Residential	\$1,945,386	54.3%	4,485.0	\$240,558,165	\$240,558,165	-\$22,796,706	\$0	\$0	\$0	-\$8,250,676	-\$31,047,382	-\$2,094,535	4,508.9	\$228,700,115	241,838,851.4	-\$33,141,917	-\$13,138,736	\$0	\$0	-\$3,613,506	-\$49,894,160	-\$3,230,103
Small General	\$97,112	2.7%	247.6	\$13,683,753	\$13,683,753	-\$1,137,991	\$0	\$0	\$233,088	-\$411,866	-\$1,316,768	-\$95,490	262.7	\$13,588,817	14,515,176.8	-\$1,412,259	-\$926,360	\$0	\$233,088	-\$180,383	-\$2,285,913	-\$143,859	
General Demand	\$863,366	24.1%	2,509.0	\$131,932,851	\$131,932,851	-\$10,117,223	\$0	\$0	-\$1,198,960	-\$3,661,666	-\$14,977,850	-\$976,198	2,424.7	\$119,834,100	127,498,807.5	-\$15,954,048	-\$7,664,708	\$0	-\$1,198,960	-\$1,603,681	-\$26,421,397	-\$1,648,405	
Large General	\$110,492	3.1%	406.5	\$20,335,158	\$20,335,158	-\$1,294,783	\$0	\$1,054,467	\$1,291,856	-\$468,613	\$582,926	-\$27,691	415.6	\$19,554,329	20,787,884.6	\$555,235	-\$1,233,556	\$0	\$1,291,856	-\$205,236	\$408,300	\$37,482	
Total Commercial	\$1,070,970	29.9%	3,163.2	\$165,951,761	\$165,951,761	-\$12,549,997	\$0	\$1,054,467	\$325,985	-\$4,542,146	-\$15,711,692	-\$1,099,380	3,102.9	\$152,977,246	\$162,801,869	-\$16,811,071	-\$9,824,623	\$0	\$325,985	-\$1,989,300	-\$28,299,010	-\$1,754,782	
Small Industrial	\$86,528	2.4%	252.4	\$13,061,307	\$13,061,307	-\$1,013,961	\$0	\$0	-\$199,206	-\$366,977	-\$1,580,144	-\$100,911	256.6	\$12,548,882	13,281,102.6	-\$1,681,055	-\$732,221	\$0	-\$199,206	-\$160,723	-\$2,773,205	-\$173,271	
Medium Industrial	\$152,898	4.3%	470.9	\$23,209,111	\$23,209,111	-\$1,791,718	\$0	\$941,887	-\$106,373	-\$648,466	-\$1,604,670	-\$132,119	475.6	\$22,045,695	23,440,851.2	-\$1,736,789	-\$1,395,156	\$0	-\$106,373	-\$284,005	-\$3,522,324	-\$204,579	
Large Industrial Total		0.0%																					
Firm	\$34,552.09	1.0%	94.9	\$4,560,898.00	\$4,560,898	-\$404,893	\$0	\$207,885	\$0	-\$146,541	-\$343,549	-\$29,114	127.3	\$5,751,294	\$6,120,818	-\$372,664	-\$369,524	\$0	\$0	-\$64,180	-\$806,367	-\$45,864	
Interruptible	\$177,175.83	4.9%	596.6	\$28,677,383.97	\$28,677,384	-\$2,076,208	\$0	\$1,307,109	\$0	-\$751,430	-\$1,520,529	-\$139,913	652.9	\$29,491,425	\$31,386,264	-\$1,660,442	-\$1,894,839	\$0	\$0	-\$329,100	-\$3,884,381	-\$215,694	
Large Industrial Total	\$211,728	5.9%	691.5	\$33,238,282	\$33,238,282	-\$2,481,102	\$0	\$1,514,994	\$0	-\$897,970	-\$1,864,078	-\$169,027	780.3	\$35,242,719	\$37,507,082	-\$2,033,105	-\$2,264,363	\$0	\$0	-\$393,279	-\$4,690,748	-\$261,558	
Total Industrial	\$451,154	12.6%	1,414.8	\$69,508,700	\$69,508,700	-\$5,286,780	\$0	\$2,456,881	-\$305,580	-\$1,913,413	-\$5,048,892	-\$402,058	1,512.5	\$69,837,296	\$74,229,036	-\$5,450,949	-\$4,391,740	\$0	-\$305,580	-\$838,008	-\$10,986,276	-\$639,408	
Municipal ⁽²⁾	\$60,971	1.7%	181.0	\$9,047,284	\$9,047,284	-\$714,484	\$0	\$0	\$0	-\$258,589	-\$973,073	-\$65,646	177.8	\$8,387,562	8,887,712.9	-\$1,038,719	-\$500,151	\$0	\$0	-\$113,253	-\$1,652,123	-\$104,674	
Unmetered	\$53,801	1.5%	108.4	\$5,745,785	\$5,745,785	-\$630,454	\$0	\$0	-\$20,405	-\$228,176	-\$879,035	-\$58,719	103.7	\$5,163,406	5,497,837.6	-\$937,754	-\$334,432	\$0	-\$20,405	-\$99,933	-\$1,392,525	-\$90,648	
Total Other	\$114,772	3.2%	289.4	\$14,793,069	\$14,793,069	-\$1,344,938	\$0	\$0	-\$20,405	-\$486,765	-\$1,852,108	-\$124,365	281.5	\$13,550,968	\$14,385,550	-\$1,976,473	-\$834,583	\$0	-\$20,405	-\$213,186	-\$3,044,647	-\$195,322	
Total FAM Classes	\$3,582,281	100.0%	9,352.4	\$490,811,695	\$490,811,695	-\$41,978,422	\$0	\$3,511,348	\$0	-\$15,193,000	-\$53,660,074	-\$3,720,337	9,405.9	\$465,065,625	\$493,255,307	-\$57,380,411	-\$28,189,682	\$0	\$0	-\$6,654,000	-\$92,224,093	-\$5,819,615	
Rate Plan	2014 Rate Base	2016										2017											
		Sales (GWh)	BCF		Rate Stability Fund								Sales (GWh)	BCF		Rate Stability Fund							
		Amount	%	Requirement	Recovery at 2016 Rates	Year-beginning	Contribution from BCF Recovery	Deferred FAM	DSM RSA Adjustment	Additional Cash Taxes	Year-end bfr Interest	Interest	Requirement	Recovery at 2017 Rates	Year-beginning	Contribution from BCF Recovery	Deferred FAM	DSM RSA Adjustment	Additional Cash Taxes	Year-end bfr Interest	Interest		
	Residential	\$1,945,386	54.3%	4,485.0	\$240,558,165	\$240,558,165	-\$22,796,706	\$0	-	\$0	-\$8,250,676	-\$31,047,382	-\$2,094,535	4,508.9	\$228,700,115	259,544,959.79	-\$33,141,917	-\$30,844,845	-	\$0	-\$3,613,506	-\$67,600,268	-\$3,918,871
Small General	\$97,112	2.7%	247.6	\$13,683,753	\$13,683,753	-\$1,137,991	\$0	-	\$233,088	-\$411,866	-\$1,316,768	-\$95,490	262.7	\$13,588,817	15,155,499.4	-\$1,412,259	-\$1,566,682	-	\$233,088	-\$180,383	-\$2,926,235	-\$168,767	
General Demand	\$863,366	24.1%	2,509.0	\$131,932,851	\$131,932,851	-\$10,117,223	\$0	-	-\$1,198,960	-\$3,661,666	-\$14,977,850	-\$976,198	2,424.7	\$119,834,100	133,529,177.4	-\$15,954,048	-\$13,695,078	-	-\$1,198,960	-\$1,603,681	-\$32,451,767	-\$1,882,986	
Large General	\$110,492	3.1%	406.5	\$20,335,158	\$20,335,158	-\$1,294,783	\$0	1,054,467.0	\$1,291,856	-\$468,613	\$582,926	-\$27,691	415.6	\$19,554,329	22,387,366.8	\$555,235	-\$2,833,038	-	\$1,291,856	-\$205,236	-\$1,191,183	-\$24,738	
Total Commercial	\$1,070,970	29.9%	3,163.2	\$165,951,761	\$165,951,761	-\$12,549,997	\$0	\$1,054,467	\$325,985	-\$4,542,146	-\$15,711,692	-\$1,099,380	3,102.9	\$152,977,246	\$171,072,044	-\$16,811,071	-\$18,094,798	\$0	\$325,985	-\$1,989,300	-\$36,569,185	-\$2,076,492	
Small Industrial	\$86,528	2.4%	252.4	\$13,061,307	\$13,061,307	-\$1,013,961	\$0	-	-\$199,206	-\$366,977	-\$1,580,144	-\$100,911	256.6	\$12,548,882	13,823,007.8	-\$1,681,055	-\$1,274,126	-	-\$199,206	-\$160,723	-\$3,315,110	-\$194,351	
Medium Industrial	\$152,898	4.3%	470.9	\$23,209,111	\$23,209,111	-\$1,791,718	\$0	941,887.0	-\$106,373	-\$648,466	-\$1,604,670	-\$132,119	475.6	\$22,045,695	24,386,173.3	-\$1,736,789	-\$2,340,478	-	-\$106,373	-\$284,005	-\$4,467,646	-\$241,353	
Large Industrial Total																							
Firm	\$34,552.09	1.0%	94.9	\$4,560,898.00	\$4,560,898	-\$404,893	\$0	207,884.8	\$0	-\$146,541	-\$343,549	-\$29,114	127.3	\$5,751,294	\$6,427,299	-\$372,664	-\$676,004	-	\$0	-\$64,180	-\$1,112,848	-\$57,786	
Interruptible	\$177,175.83	4.9%	596.6	\$28,677,383.97	\$28,677,384	-\$2,076,208	\$0	1,307,109.2	\$0	-\$751,430	-\$1,520,529	-\$139,913	652.9	\$29,491,425	\$32,974,215	-\$1,660,442	-\$3,482,790	-	\$0	-\$329,100	-\$5,472,331	-\$277,465	
Large Industrial Total	\$211,728	5.9%	691.5	\$33,238,282	\$33,238,282	-\$2,481,102	\$0	1,514,994.0	\$0	-\$897,970	-\$1,864,078	-\$169,027	780.3	\$35,242,719	\$39,401,514	-\$2,033,105	-\$4,158,794	-	\$0	-\$393,279	-\$6,585,179	-\$335,251	
Total Industrial	\$451,154	12.6%	1,414.8	\$69,508,700	\$69,508,700	-\$5,286,780	\$0	\$2,456,881	-\$305,580	-\$1,913,413	-\$5,048,892	-\$402,058	1,512.5	\$69,837,296	\$77,610,695	-\$5,450,949	-\$7,773,398	\$0	-\$305,580	-\$838,008	-\$14,367,935	-\$770,955	
Municipal ⁽²⁾	\$60,971	1.7%	181.0	\$9,047,284	\$9,047,284	-\$714,484	\$0	-	\$0	-\$258,589	-\$973,073	-\$65,646	177.8	\$8,387,562	9,480,132.6	-\$1,038,719	-\$1,092,570	-	\$0	-\$113,253	-\$2,244,542	-\$127,719	
Unmetered	\$53,801	1.5%	108.4	\$5,745,785	\$5,745,785	-\$630,454	\$0	-	-\$20,405	-\$228,176	-\$879,035	-\$58,719	103.7	\$5,163,406	5,655,509.1	-\$937,754	-\$492,103	-	-\$20,405	-\$99,933	-\$1,550,196	-\$96,781	
Total Other	\$114,772	3.2%	289.4	\$14,793,069	\$14,793,069	-\$1,344,938	\$0	\$0	-\$20,405	-\$486,765	-\$1,852,108	-\$124,365	281.5	\$13,550,968	\$15,135,642	-\$1,976,473	-\$1,584,674	\$0	-\$20,405	-\$213,186	-\$3,794,738	-\$224,500	
Total FAM Classes	\$3,582,281	100.0%	9,352.4	\$490,811,695	\$490,811,695	-\$41,978,422	\$0	\$3,511,348	\$0	-\$15,193,000	-\$53,660,074	-\$3,720,337	9,405.9	\$465,065,625	\$523,363,340	-\$57,380,411	-\$58,297,715	\$0	\$0	-\$6,654,000	-\$122,332,126	-\$6,990,818	

WACC																					
2016 Rates	2018										2019										
	Sales (GWh)	BCF		Rate Stability Fund							Sales (GWh)	BCF		Rate Stability Fund							
		Requirement	Recovery at 2016 Rates	Year-beginning	Contribution from BCF Recovery	Deferred FAM	DSM RSA Adjustment	Additional Cash Taxes	Year-end bfr Interest	Interest		Requirement	Recovery at 2016 Rates	Year-beginning	Contribution from BCF Recovery	Deferred FAM	DSM RSA Adjustment	Additional Cash Taxes	Year-end bfr Interest	Interest	
	Residential	4,549.4	\$315,943,371	244,008,479.3	-\$53,124,263	\$71,934,892	\$0	\$0	-\$1,288,067	\$17,522,562	-\$1,384,906	4,583.1	\$321,240,057	245,816,195.4	\$16,137,656	\$75,423,862	\$0	\$0	-\$119,442	\$91,442,076	\$4,184,852
	Small General	262.3	\$17,604,720	14,493,754.5	-\$2,429,772	\$3,110,965	\$0	\$233,088	-\$64,299	\$849,983	-\$61,454	262.1	\$17,753,529	14,483,253.2	\$788,529	\$3,270,276	\$0	\$0	-\$5,962	\$4,052,842	\$188,329
General Demand	2,413.1	\$153,829,665	126,887,061.4	-\$28,069,802	\$26,942,603	\$0	-\$1,198,960	-\$571,647	-\$2,897,805	-\$1,204,640	2,404.7	\$155,184,722	126,444,935.7	-\$4,102,444	\$28,739,786	\$0	\$0	-\$53,009	\$24,584,333	\$796,745	
Large General	412.7	\$24,673,184	20,645,600.6	\$445,781	\$4,027,584	\$0	\$1,291,856	-\$73,158	\$5,692,063	\$238,762	409.9	\$24,873,915	20,503,316.6	\$5,930,825	\$4,370,598	\$0	\$0	-\$6,784	\$10,294,639	\$631,171	
Total Commercial	3,088.1	\$196,107,569	\$162,026,417	-\$30,053,792	\$34,081,152	\$0	\$325,985	-\$709,104	\$3,644,241	-\$1,027,332	3,076.6	\$197,812,165	\$161,431,506	\$2,616,909	\$36,380,660	\$0	\$0	-\$65,755	\$38,931,814	\$1,616,245	
Small Industrial	256.2	\$16,132,494	13,257,460.2	-\$2,946,476	\$2,875,034	\$0	-\$199,206	-\$57,291	-\$327,939	-\$127,375	256.0	\$16,350,955	13,250,016.6	-\$455,314	\$3,100,939	\$0	\$0	-\$5,313	\$2,640,312	\$84,996	
Medium Industrial	479.1	\$28,181,928	23,611,429.1	-\$3,726,903	\$4,570,499	\$0	-\$106,373	-\$101,236	\$635,986	-\$120,237	481.6	\$28,776,404	23,735,513.2	\$515,750	\$5,040,891	\$0	\$0	-\$9,388	\$5,547,253	\$235,851	
Large Industrial Total																				#DIV/0!	
Firm	126.3	\$7,178,323	6,071,338.2	-\$852,231	\$1,106,985	\$0	\$0	-\$22,877	\$231,876	-\$24,132	125.3	\$7,236,831	6,021,858.3	\$207,744	\$1,214,973	\$0	\$0	-\$2,121	\$1,420,595	\$63,342	
Interruptible	667.0	\$37,910,885	32,064,566.2	-\$4,100,074	\$5,846,319	\$0	\$0	-\$117,311	\$1,628,934	-\$96,127	666.9	\$38,528,725	32,060,238.3	\$1,532,807	\$6,468,487	\$0	\$0	-\$10,878	\$7,990,416	\$370,453	
Large Industrial Total	793.3	\$45,089,208	\$38,135,904	-\$4,952,306	\$6,953,303	\$0	\$0	-\$140,188	\$1,860,810	-\$120,259	792.2	\$45,765,556	\$38,082,097	\$1,740,551	\$7,683,460	\$0	\$0	-\$13,000	\$9,411,011	\$433,796	
Total Industrial	1,528.6	\$89,403,630	\$75,004,794	-\$11,625,684	\$14,398,836	\$0	-\$305,580	-\$298,715	\$2,168,857	-\$367,871	1,529.8	\$90,892,916	\$75,067,626	\$1,800,987	\$15,825,290	\$0	\$0	-\$27,700	\$17,598,577	\$754,643	
Municipal ⁽²⁾	178.0	\$11,134,818	8,895,353.5	-\$1,756,796	\$2,239,465	\$0	\$0	-\$40,370	\$442,299	-\$51,134	172.1	\$10,890,680	8,604,011.4	\$391,165	\$2,286,668	\$0	\$0	-\$3,743	\$2,674,089	\$119,238	
Unmetered	101.9	\$6,660,842	5,403,485.2	-\$1,483,172	\$1,257,356	\$0	-\$20,405	-\$35,622	-\$281,843	-\$68,659	100.9	\$6,699,251	5,346,237.6	-\$350,502	\$1,353,013	\$0	\$0	-\$3,303	\$999,208	\$25,235	
Total Other	279.9	\$17,795,660	\$14,298,839	-\$3,239,969	\$3,496,821	\$0	-\$20,405	-\$75,992	\$160,455	-\$119,793	273.0	\$17,589,931	\$13,950,249	\$40,662	\$3,639,682	\$0	\$0	-\$7,047	\$3,673,297	\$144,473	
Total FAM Classes	9,445.9	\$619,250,230	\$495,338,528	-\$98,043,708	\$123,911,702	\$0	\$0	-\$2,371,878	\$23,496,115	-\$2,899,901	9,462.5	\$627,535,070	\$496,265,576	\$20,596,214	\$131,269,493	\$0	\$0	-\$219,943	\$151,645,764	\$6,700,213	
Rate Plan	2018										2019										
	Sales (GWh)	BCF		Rate Stability Fund							Sales (GWh)	BCF		Rate Stability Fund							
		Requirement	Recovery at 2018 Rates	Year-beginning	Contribution from BCF Recovery	Deferred FAM	DSM RSA Adjustment	Additional Cash Taxes	Year-end bfr Interest	Interest		Requirement	Recovery at 2019 Rates	Year-beginning	Contribution from BCF Recovery	Deferred FAM	DSM RSA Adjustment	Additional Cash Taxes	Year-end bfr Interest	Interest	
	Residential	4,549.4	\$315,943,371	272,888,313.26	-\$71,519,139	\$43,055,058	-	\$0	-\$1,288,067	-\$29,752,148	-\$3,939,453	4,583.1	\$321,240,057	286,167,484.74	-\$33,691,601	\$35,072,573	-	\$0	-\$119,442	\$1,261,530	-\$1,261,530
	Small General	262.3	\$17,604,720	15,783,163.5	-\$3,095,003	\$1,821,556	-	\$233,088	-\$64,299	-\$1,104,657	-\$163,367	262.1	\$17,753,529	16,432,062.9	-\$1,268,024	\$1,321,466	-	\$0	-\$5,962	\$47,479	-\$47,479
General Demand	2,413.1	\$153,829,665	134,506,417.5	-\$34,334,753	\$19,323,247	-	-\$1,198,960	-\$571,647	-\$16,782,112	-\$1,988,446	2,404.7	\$155,184,722	135,658,320.6	-\$18,770,558	\$19,526,401	-	\$0	-\$53,009	\$702,834	-\$702,834	
Large General	412.7	\$24,673,184	23,964,932.7	-\$1,215,921	\$708,252	-	\$1,291,856	-\$73,158	\$711,029	-\$19,640	409.9	\$24,873,915	25,584,406.9	\$691,388	-\$710,492	-	\$0	-\$6,784	-\$25,888	\$25,888	
Total Commercial	3,088.1	\$196,107,569	\$174,254,514	-\$38,645,677	\$21,853,055	\$0	\$325,985	-\$709,104	-\$17,175,741	-\$2,171,453	3,076.6	\$197,812,165	\$177,674,790	-\$19,347,194	\$20,137,375	\$0	\$0	-\$65,755	\$724,426	-\$724,426	
Small Industrial	256.2	\$16,132,494	14,080,424.3	-\$3,509,461	\$2,052,070	-	-\$199,206	-\$57,291	-\$1,713,889	-\$203,188	256.0	\$16,350,955	14,356,784.1	-\$1,917,077	\$1,994,171	-	\$0	-\$5,313	\$71,782	-\$71,782	
Medium Industrial	479.1	\$28,181,928	25,364,456.3	-\$4,708,998	\$2,817,472	-	-\$106,373	-\$101,236	-\$2,099,136	-\$264,836	481.6	\$28,776,404	26,314,529.3	-\$2,363,972	\$2,461,875	-	\$0	-\$9,388	\$88,515	-\$88,515	
Large Industrial Total																				#DIV/0!	
Firm	126.3	\$7,178,323	6,519,499.4	-\$1,170,634	\$658,823	-	\$0	-\$22,877	-\$534,688	-\$66,337	125.3	\$7,236,831	6,611,180.0	-\$601,025	\$625,651	-	\$0	-\$2,121	\$22,504	-\$22,504	
Interruptible	667.0	\$37,910,885	34,603,064.3	-\$5,749,796	\$3,307,821	-	\$0	-\$117,311	-\$2,559,286	-\$323,223	666.9	\$38,528,725	35,527,406.7	-\$2,882,509	\$3,001,319	-	\$0	-\$10,878	\$107,931	-\$107,931	
Large Industrial Total	793.3	\$45,089,208	\$41,122,564	-\$6,920,430	\$3,966,644	-	\$0	-\$140,188	-\$3,093,974	-\$389,560	792.2	\$45,765,556	\$42,138,587	-\$3,483,534	\$3,626,970	-	\$0	-\$13,000	\$130,436	-\$130,436	
Total Industrial	1,528.6	\$89,403,630	\$80,567,444	-\$15,138,890	\$8,836,186	\$0	-\$305,580	-\$298,715	-\$6,906,999	-\$857,585	1,529.8	\$90,892,916	\$82,809,900	-\$7,764,584	\$8,083,016	\$0	\$0	-\$27,700	\$290,733	-\$290,733	
Municipal ⁽²⁾	178.0	\$11,134,818	9,747,981.7	-\$2,372,261	\$1,386,837	-	\$0	-\$40,370	-\$1,025,794	-\$132,184	172.1	\$10,890,680	9,685,598.5	-\$1,157,979	\$1,205,081	-	\$0	-\$3,743	\$43,359	-\$43,359	
Unmetered	101.9	\$6,660,842	5,715,966.9	-\$1,646,977	\$944,875	-	-\$20,405	-\$35,622	-\$758,130	-\$93,559	100.9	\$6,699,251	5,812,369.0	-\$851,689	\$886,882	-	\$0	-\$3,303	\$31,890	-\$31,890	
Total Other	279.9	\$17,795,660	\$15,463,949	-\$4,019,239	\$2,331,711	\$0	-\$20,405	-\$75,992	-\$1,783,924	-\$225,743	273.0	\$17,589,931	\$15,497,967	-\$2,009,668	\$2,091,963	\$0	\$0	-\$7,047	\$75,249	-\$75,249	
Total FAM Classes	9,445.9	\$619,250,230	\$543,174,220	-\$129,322,944	\$76,076,010	\$0	\$0	-\$2,371,878	-\$55,618,812	-\$7,194,234	9,462.5	\$627,535,070	\$562,150,143	-\$62,813,046	\$65,384,927	\$0	\$0	-\$219,943	\$2,351,937	-\$2,351,937	

WACC												
2016 Rates	2020											
	Sales (GWh)	BCF		Rate Stability Fund							Year Beginning 2021	
		Requirement	Recovery at 2016 Rates	Year-beginning	Contribution from BCF Recovery	Deferred FAM	DSM RSA Adjustment	Additional Cash Taxes	Year-end bfr Interest	Interest		
	Residential	4,629.4	\$337,857,647	248,300,327.05	\$95,626,928	\$89,557,320	\$0	\$0	\$0	\$185,184,248	\$10,923,555	\$196,107,802
	Small General	263.4	\$18,633,210	14,556,630.4	\$4,241,171	\$4,076,579	\$0	\$0	\$0	\$8,317,750	\$488,542	\$8,806,293
	General Demand	2,408.3	\$162,938,962	126,634,698.3	\$25,381,078	\$36,304,264	\$0	\$0	\$0	\$61,685,342	\$3,386,884	\$65,072,226
	Large General	407.0	\$25,990,002	20,361,691.2	\$10,925,810	\$5,628,311	\$0	\$0	\$0	\$16,554,121	\$1,068,969	\$17,623,090
	Total Commercial	3,078.7	\$207,562,174	\$161,553,020	\$40,548,059	\$46,009,154	\$0	\$0	\$0	\$86,557,213	\$4,944,395	\$91,501,608
	Small Industrial	256.3	\$17,181,770	13,263,188.4	\$2,725,309	\$3,918,582	\$0	\$0	\$0	\$6,643,891	\$364,462	\$7,008,352
	Medium Industrial	482.3	\$30,312,060	23,768,589.5	\$5,783,104	\$6,543,471	\$0	\$0	\$0	\$12,326,575	\$704,467	\$13,031,041
Large Industrial Total Firm	124.2	\$7,561,463	5,972,607.5	\$1,483,938	\$1,588,856	\$0	\$0	\$0	\$3,072,794	\$177,257	\$3,250,050	
Interruptible	663.8	\$40,400,286	31,911,157.4	\$8,360,869	\$8,489,129	\$0	\$0	\$0	\$16,849,997	\$980,703	\$17,830,700	
Large Industrial Total	788.1	\$47,961,749	\$37,883,765	\$9,844,807	\$10,077,984	\$0	\$0	\$0	\$19,922,791	\$1,157,960	\$21,080,751	
Total Industrial	1,526.6	\$95,455,580	\$74,915,543	\$18,353,220	\$20,540,037	\$0	\$0	\$0	\$38,893,256	\$2,226,888	\$41,120,144	
Municipal ⁽²⁾	160.9	\$10,661,670	8,040,157.7	\$2,793,328	\$2,621,512	\$0	\$0	\$0	\$5,414,840	\$319,298	\$5,734,137	
Unmetered	100.9	\$7,009,686	5,347,827.6	\$1,024,442	\$1,661,858	\$0	\$0	\$0	\$2,686,301	\$144,348	\$2,830,649	
Total Other	261.7	\$17,671,356	\$13,387,985	\$3,817,770	\$4,283,370	\$0	\$0	\$0	\$8,101,140	\$463,646	\$8,564,786	
Total FAM Classes	9,496.5	\$658,546,756	\$498,156,875	\$158,345,977	\$160,389,881	\$0	\$0	\$0	\$318,735,857	\$18,558,483	\$337,294,341	
Rate Plan	2020											
	Sales (GWh)	BCF		Rate Stability Fund							Year Beginning 2021	
		Requirement	Recovery at 2020 Rates	Year-beginning	Contribution from BCF Recovery	Deferred FAM	DSM RSA Adjustment	Additional Cash Taxes	Year-end bfr Interest	Interest		
	Residential	4,629.4	\$337,857,647	337,857,647	\$0	\$0	-	\$0	\$0	\$0	\$0	\$0
	Small General	263.4	\$18,633,210	18,633,210	-\$0	\$0	-	\$0	\$0	-\$0	-\$0	-\$0
	General Demand	2,408.3	\$162,938,962	162,938,962	-\$0	\$0	-	\$0	\$0	-\$0	-\$0	-\$0
	Large General	407.0	\$25,990,002	25,990,002	-\$0	\$0	-	\$0	\$0	-\$0	-\$0	-\$0
	Total Commercial	3,078.7	\$207,562,174	207,562,174	-\$0	\$0	\$0	\$0	\$0	-\$0	-\$0	-\$0
	Small Industrial	256.3	\$17,181,770	17,181,770	\$0	\$0	-	\$0	\$0	\$0	\$0	\$0
	Medium Industrial	482.3	\$30,312,060	30,312,060	-\$0	\$0	-	\$0	\$0	-\$0	-\$0	-\$0
Large Industrial Total Firm	124.2	\$7,561,463	7,561,463	-\$0	\$0	-	\$0	\$0	-\$0	-\$0	-\$0	
Interruptible	663.8	\$40,400,286	40,400,286	-\$0	\$0	-	\$0	\$0	-\$0	-\$0	-\$0	
Large Industrial Total	788.1	\$47,961,749	47,961,749	-\$0	\$0	-	\$0	\$0	-\$0	-\$0	-\$0	
Total Industrial	1,526.6	\$95,455,580	\$95,455,580	-\$0	\$0	\$0	\$0	\$0	-\$0	-\$0	-\$0	
Municipal ⁽²⁾	160.9	\$10,661,670	10,661,669.7	-\$0	\$0	-	\$0	\$0	-\$0	-\$0	-\$0	
Unmetered	100.9	\$7,009,686	7,009,685.9	-\$0	\$0	-	\$0	\$0	-\$0	-\$0	-\$0	
Total Other	261.7	\$17,671,356	\$17,671,356	-\$0	\$0	\$0	\$0	\$0	-\$0	-\$0	-\$0	
Total FAM Classes	9,496.5	\$658,546,756	\$658,546,756	-\$0	\$0	\$0	\$0	\$0	-\$0	-\$0	-\$0	

REDACTED (CONFIDENTIAL INFORMATION REMOVED)

REDACTED Fuel Stability Plan CA IR-2 Attachment 1 Page 8 of 11

WACC	7.78%		
	Outstanding balance with interest by year-end		Target Uniform %increase
	2019	2020	
Residential	\$0	\$0	1.51%
Small General	-\$0	-\$0	1.59%
General Demand	-\$0	-\$0	0.511%
Large General	-\$0	-\$0	3.65%
Total Commercial	-\$0	-\$0	0.98%
Small Industrial	\$0	\$0	0.85%
Medium Industrial	-\$0	-\$0	1.48%
Large Industrial Total	-\$0	-\$0	
Firm	\$0	\$0	1.09%
Intermittible	\$0	\$0	1.41%
Large Industrial Total	-\$0	-\$0	1.35%
Total Industrial	-\$0	-\$0	1.29%
Municipal ⁽²⁾	-\$0	-\$0	1.24%
Unmatured	-\$0	-\$0	0.71%
Total Other	-\$0	-\$0	0.97%
Total FAM Classes	-\$0	-\$0	1.30%

[illegible]

Revenue Variance				% Var GWh Sales				% Var Revenues				% Var Unit Revenues (c/kWh)				BCF Rates (c/kWh)			% Var BCF Rates (c/kWh)				
2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
\$5,465,825	\$5,812,752	\$4,849,995	\$6,720,314	0.5%	0.9%	0.7%	1.0%	0.8%	0.8%	0.7%	0.9%	0.2%	-0.1%	-0.1%	-0.1%	5.364	5.364	5.364		0.0%	0.0%	0.0%	0.0%
\$2,155,847	\$2,884	\$1,204	\$1,210	6.1%	-0.1%	-0.1%	-0.5%	5.7%	-0.1%	-0.5%	0.9%	-0.4%	0.1%	0.1%	0.0%	5.526	5.526	5.526		0.0%	0.0%	0.0%	0.0%
\$10,793,935	\$1,487,215	\$1,074,851	\$461,332	-3.4%	-0.5%	-0.3%	-0.2%	-3.4%	-0.8%	-0.3%	0.2%	0.0%	0.0%	0.0%	0.0%	5.258	5.258	5.258		0.0%	0.0%	0.0%	0.0%
\$739,024	\$624,122	\$622	\$622	2.2%	-0.7%	-0.7%	-0.7%	1.2%	-0.4%	-0.4%	0.2%	0.2%	0.2%	0.2%	0.2%	5.002	5.002	5.002		0.0%	0.0%	0.0%	0.0%
\$537,407	\$50,100	\$11,292	\$32,369	1.7%	-0.2%	-0.1%	0.1%	1.7%	-0.2%	-0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	5.175	5.175	5.175		0.0%	0.0%	0.0%	0.0%
\$1,098,301	\$389,786	\$283,543	\$75,582	1.0%	0.7%	0.5%	0.1%	2.1%	0.7%	0.5%	0.1%	1.1%	0.0%	0.0%	0.0%	4.928	4.928	4.928		0.0%	0.0%	0.0%	0.0%
\$0	\$0	\$0	\$0																				
\$2,784,686	\$50,596	\$50,596	\$200,223	-0.2%	-0.8%	-0.8%	-0.6%	-27.3%	-0.8%	-0.8%	-0.6%	-5.1%	0.2%	0.2%	0.2%	4.807	4.807	4.807		0.0%	0.0%	0.0%	0.0%
\$6,460,761	\$1,460,951	\$61	\$520,449	9.4%	2.2%	0.0%	0.0%	11.6%	2.4%	0.0%	0.4%	2.0%	0.2%	0.0%	0.1%	4.807	4.807	4.807		0.0%	0.0%	0.0%	0.0%
\$9,245,467	\$1,360,955	\$67,287	\$130,712	12.8%	1.2%	-0.1%	-0.5%	14.1%	1.8%	-0.1%	-0.4%	1.2%	0.2%	0.0%	0.1%								
\$16,881,165	\$1,712,481	\$177,864	\$202,791	8.9%	1.1%	0.1%	-0.5%	7.2%	1.1%	0.1%	-0.5%	1.1%	0.1%	0.1%	0.1%								
\$172,641	\$12,027	\$458,596	\$88,545	-1.8%	0.1%	-3.3%	-4.6%	0.9%	0.1%	-2.3%	-4.5%	2.7%	0.0%	1.1%	2.2%	4.998	4.998	4.998		0.0%	0.0%	0.0%	0.0%
\$1,356,968	\$30,458	\$232,038	\$647,550	-3.4%	-1.7%	-1.1%	0.0%	-5.8%	-0.1%	-1.1%	0.0%	-0.8%	1.6%	0.0%	0.0%	5.301	5.301	5.301		0.0%	0.0%	0.0%	0.0%
\$1,184,327	\$18,431	\$696,634	\$681,105	-2.7%	-0.8%	-2.5%	-4.1%	-2.7%	-0.8%	-1.6%	-2.1%	0.0%	0.5%	0.9%	2.1%								
\$7,315,038	\$5,755,492	\$3,026,498	\$6,074,314	0.6%	0.4%	0.2%	0.4%	0.0%	0.2%	0.2%	0.5%	0.0%	0.0%	0.1%	0.1%								

Revenue Requirement

	Revenue Requirements			Revenues priced at previous year's rates			Variance			% Variance			NPV of Revenue Requirements 3Y			
	2018	2019	2020	2018	2019	2020	2018	2019	2020	2018	2019	2020				
	\$656,389,220	\$782,742,957	\$792,250,547	\$813,223,761	\$661,754,353	\$788,116,333	\$799,731,861	-\$56,837,901	\$120,988,604	\$4,134,214	\$13,491,900	-8.0%	18.3%	0.5%	1.7%	\$,915,599,784
	\$37,978,036	\$43,541,620	\$43,498,175	\$44,565,620	\$40,263,949	\$37,952,526	\$43,511,240	\$2,285,913	\$5,562,294	-\$13,065	\$798,728	-9.7%	14.2%	0.0%	1.8%	\$,107,438,626
	\$283,540,331	\$333,647,009	\$336,008,938	\$344,122,576	\$314,178,198	\$282,103,387	\$332,484,449	\$336,591,322	\$3,602,490	\$1,574,534	-5.8%	18.2%	0.1%	2.3%	\$,188,724,620	
	\$46,415,129	\$51,018,938	\$49,901,100	\$50,031,912	\$45,827,873	\$46,177,563	\$50,747,412	\$487,256	\$4,840,777	-\$948,311	\$1,298,664	1.1%	10.0%	-1.7%	2.6%	\$,128,939,816
	\$367,933,998	\$428,180,168	\$429,486,213	\$439,618,328	\$366,310,476	\$426,743,100	\$429,953,526	-\$32,634,920	\$36,743,103	\$1,694,802	-1.1%	16.9%	0.9%	2.2%	\$,1,053,902,967	
	\$29,864,195	\$31,197,836	\$36,656,634	\$36,651,958	\$32,899,163	\$28,981,132	\$35,178,074	\$35,692,000	\$36,865,580	\$819,878	-9.2%	18.1%	1.4%	2.3%	\$,867,435,379	
	\$5,042,121	\$58,317,121	\$58,269,278	\$60,856,827	\$32,768,156	\$50,100,425	\$58,126,572	\$3,164,034	\$7,910,845	\$25,351,672	-0.9%	15.7%	1.1%	2.9%	\$,143,370,292	
	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	\$12,160,355	\$13,970,233	\$14,018,382	\$14,314,314	\$13,129,705	\$12,086,278	\$13,880,802	\$13,928,239	-\$969,530	\$1,883,356	\$13,579	5.38%	24.9%	1.0%	2.8%	\$,34,505,268
	\$5,759,949	\$6,977,281	\$6,958,191	\$7,219,262	\$6,672,845	\$6,063,617	\$6,763,674	\$6,763,674	\$279,374	\$2,481,548	-7.3%	16.6%	0.1%	3.0%	\$,169,531,494	
	\$70,357,297	\$83,241,915	\$84,011,572	\$86,138,385	\$75,916,182	\$71,660,223	\$83,144,618	\$55,688	\$1,581,292	\$666,953	\$4,441,472	-7.3%	16.2%	0.2%	2.9%	\$,204,068,346
	\$150,263,613	\$176,756,472	\$178,937,484	\$183,477,170	\$162,541,504	\$151,877,530	\$176,946,285	\$178,704,865	-\$127,279	\$248,872,942	\$1,991,199	-7.42%	20.1%	0.1%	2.7%	\$,434,494,381
	\$18,670,065	\$22,533,310	\$22,158,544	\$21,609,592	\$20,868,246	\$22,002,689	\$21,121,386	\$1,988,180	\$1,855,985	\$488,198	-9.6%	20.0%	0.7%	2.3%	\$,54,414,118	
	\$20,538,585	\$24,058,920	\$23,919,923	\$23,347,918	\$21,833,146	\$20,633,025	\$22,858,214	\$23,028,169	\$161,109	\$31,747,748	-9.4%	12.5%	0.7%	1.4%	\$,57,330,760	
	\$39,209,650	\$45,636,290	\$45,177,367	\$44,938,456	\$42,591,392	\$44,660,904	\$44,167,555	-\$3,817,422	\$6,686,334	\$799,343	-7.9%	16.4%	0.7%	1.8%	\$,111,748,707	
	\$1,213,796,477	\$1,433,315,687	\$1,445,852,111	\$1,481,266,756	\$1,318,907,037	\$1,219,156,055	\$1,436,666,622	\$1,452,537,806	-\$105,130,558	\$214,159,832	\$0,185,490	-8.0%	17.6%	0.6%	2.0%	\$,3,514,845,572

Unit Rev	Revenue Variance				Unit Revenues (c/kWhs)				Revenue % Var				Unit Revenue % Var				BCF Rates (c/kWh)				% Var BCF Rates (c/kWh)			
	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
15.6	\$44,420.534	\$126,353,737	\$9,507.590	\$20,973,214	14.6	17.2	17.3	17.6	-6.3%	19.2%	1.2%	2.6%	-6.8%	18.2%	0.5%	1.6%	4.257	6.916	7.007	7.208	-20.6%	62.5%	1.3%	4.2%
15.8	\$13,066	\$55,536,784	\$16,645	\$1,022,485	14.5	16.6	16.6	16.9	-0.3%	14.6%	0.0%	2.4%	-6.0%	14.7%	0.1%	0.8%	4.656	6.776	6.771	7.074	-15.7%	45.6%	0.1%	4.5%
12.4	\$37,214.692	\$50,106,179	\$2,430.929	\$8,078,818	11.7	13.8	14.0	14.3	-11.6%	17.7%	0.7%	2.0%	-8.5%	18.2%	1.1%	2.3%	4.169	6.301	6.451	6.766	-20.7%	51.2%	2.4%	4.9%
12.8	\$1,189.362	\$6,603,210	\$11,237.931	\$1,030,812	11.2	12.4	12.6	12.6	2.1%	9.3%	2.2%	2.1%	0.4%	10.7%	-1.9%	2.8%	5.101	6.274	6.067	6.385	2.0%	23.0%	-3.3%	5.2%
12.8	\$367,933.996	\$6,132,446	\$1,306.045	\$1,102,132.114	11.9	13.6	14.6	14.3	-6.9%	16.4%	0.3%	2.4%	-7.2%	16.9%	0.7%	2.3%								
12.7	\$2,426.798	\$5,333,642	\$458,798	\$855,324	11.6	13.7	13.9	14.2	-7.0%	17.9%	1.3%	2.4%	-8.5%	18.1%	1.4%	2.3%	4.195	6.167	6.384	6.704	-20.0%	51.4%	3.0%	5.0%
12.7	\$4,424.023	\$5,274,669	\$952,157	\$81,567,549	10.5	12.2	12.3	12.6	-4.8%	16.5%	1.6%	2.7%	-8.5%	15.7%	1.1%	2.0%	4.188	5.839	5.973	6.283	-15.8%	39.4%	2.3%	5.2%
9.3	\$1,979.329	\$1,809,878	\$48,148	\$296,782	9.6	11.1	11.2	11.5	19.4%	14.9%	0.3%	2.1%	-11.0%	15.8%	1.2%	3.0%	4.174	5.665	5.775	6.086	-13.2%	35.7%	1.9%	5.4%
9.3	\$70,367.380	\$1,074,040	\$721,905	\$801,031	8.8	10.6	10.8	10.8	8.6%	19.0%	1.0%	2.6%	-4.4%	16.6%	1.1%	3.1%	4.212	5.666	5.775	6.086	-13.2%	35.7%	1.9%	5.4%
9.5	\$70,367.257	\$1,884,418	\$710,657	\$2,696,815	9.0	10.5	10.6	10.9	8.8%	18.3%	0.9%	2.5%	-5.2%	16.4%	1.1%	3.0%								
10.6	\$106,263.613	\$3,662,549	\$2,181,012	\$4,539,686	9.6	11.6	11.7	12.0	-10.7%	17.6%	1.2%	2.5%	-6.5%	16.2%	1.2%	2.8%								
11.1	\$1,470.482	\$2,883,284	\$374.765	\$544,962	10.5	12.7	12.9	13.4	-7.3%	20.7%	1.7%	2.5%	-5.7%	20.6%	1.7%	4.4%	4.069	6.234	6.325	6.628	-16.8%	63.2%	1.5%	4.8%
21.5	\$2,749.492	\$2,563,396	\$83.657	\$319,593	19.8	22.7	22.8	23.1	-11.8%	12.9%	0.4%	1.4%	-7.8%	14.4%	0.7%	1.4%	3.958	6.479	6.639	6.948	-25.5%	63.7%	2.5%	4.7%
13.9	\$20,339.650	\$6,426,640	\$458.423	\$230,369	13.9	16.5	16.6	17.2	9.7%	14.4%	-1.0%	0.5%	-7.2%	17.1%	1.5%	1.9%								
13.9	\$84,900.059	\$219,519.09	\$12,536.224	\$35,414,645	12.9	15.2	15.3	15.6	-6.5%	18.1%	0.9%	2.4%	-7.1%	17.6%	0.7%	2.1%								

Rate Plan

Proposed Revenues under Smoothed Rate Increases				Revenues priced at previous year's rates				Variance				% Variance				NPV of Revenue Requirement 3%
2017	2018	2019		2017	2018	2019		2017	2018	2019		2017	2018	2019		
\$723,989,488	\$746,975,966	\$757,297,416		\$713,207,121	\$739,961,088	\$746,639,914		\$10,762,367	\$11,014,877	\$11,257,502		1.5%	1.5%	1.5%	\$1,014,448,412	
\$40,904,272	\$41,524,474	\$42,182,871		\$40,263,499	\$40,874,443	\$41,522,336		\$640,733	\$650,031	\$650,335		1.6%	1.6%	1.6%	\$1,789,100,789	
\$315,992,597	\$316,094,368	\$316,613,546		\$314,375,198	\$314,476,448	\$314,992,968		\$1,617,399	\$1,617,920	\$1,620,578		0.5%	0.5%	0.5%	\$1,188,170,667	
\$47,606,312	\$46,091,390	\$50,618,378		\$45,927,674	\$46,399,592	\$48,833,742		\$1,678,438	\$1,720,728	\$1,784,634		3.7%	3.2%	2.7%	\$1,268,056,506	
\$49,740,181	\$49,710,233	\$50,441,584		\$49,707,007	\$49,721,748	\$49,740,047		\$3,938,161	\$3,998,749	\$4,065,547		1.0%	1.0%	1.0%	\$1,527,018,672	
\$173,735,305	\$173,402,284	\$173,067,775		\$172,899,163	\$173,120,240	\$173,283,510		\$828,141	\$820,042	\$824,265		0.5%	0.4%	0.4%	\$1,286,058,334	
\$54,509,767	\$55,707,298	\$56,816,790		\$53,726,156	\$54,906,432	\$56,000,014		\$783,611	\$800,828	\$816,776		1.5%	1.5%	1.5%	\$1,434,309,955	
\$13,273,203	\$13,334,288	\$13,394,852		\$13,129,705	\$13,190,129	\$13,250,039		\$443,500	\$444,158	\$444,813		1.1%	1.1%	1.1%	\$34,492,321	
\$63,669,273	\$66,090,771	\$67,702,500		\$62,746,400	\$65,146,542	\$66,073,737		\$922,703	\$920,229	\$929,013		1.4%	1.4%	1.4%	\$1,059,473,009	
\$76,462,472	\$76,479,059	\$80,397,602		\$75,916,185	\$76,363,651	\$76,933,776		\$1,026,291	\$1,060,388	\$1,073,826		1.4%	1.4%	1.4%	\$2,302,966,130	
\$16,643,149	\$16,624,581	\$17,082,160		\$16,624,581	\$16,638,334	\$16,677,390		\$2,069,044	\$2,143,237	\$2,174,868		1.2%	1.3%	1.2%	\$4,350,392,018	
\$20,143,638	\$21,186,843	\$20,967,207		\$20,658,246	\$20,967,144	\$20,700,322		\$256,362	\$259,699	\$274,884		1.2%	1.2%	1.2%	\$4,362,308,026	
\$27,089,728	\$27,213,136	\$27,344,136		\$27,089,728	\$27,095,744	\$27,187,778		\$156,800	\$156,800	\$156,800		1.0%	1.0%	1.0%	\$4,362,308,026	
\$43,004,388	\$44,000,976	\$43,092,951		\$42,991,362	\$42,983,761	\$42,879,106		\$241,997	\$247,215	\$243,845		1.0%	1.0%	1.0%	\$1,111,680,037	
\$1,336,128,685	\$1,358,611,751	\$1,380,687,128		\$1,318,927,037	\$1,342,037,676	\$1,362,775,368		\$17,201,586	\$17,574,079	\$17,911,761		1.3%	1.3%	1.3%	\$3,512,852,140	

% Change in BCF Rates	Revenue Variance			Unit Revenues (¢/kWh)			Revenue % Var			Unit Revenue % Var			BCF Rates (¢/kWh)			% Var BCF Rates (¢/kWh)		
	2017	2018	2019	2017	2018	2019	2017	2018	2019	2017	2018	2019	2017	2018	2019	2017	2018	2019
2.5%	\$23,177,734	\$166,096,478	\$16,321,450	16.1	16.3	16.5	3.3%	2.3%	2.2%	2.8%	1.4%	1.5%	5,756	5,998	6,244	7.3%	4.2%	4.1%
1.9%	\$2,796,170	\$520,203	\$658,197	15.6	15.8	16.1	7.3%	1.5%	1.6%	1.2%	1.7%	1.7%	5,750	6,180	6,270	4.4%	4.3%	4.2%
1.6%	-\$4,762,825	\$101,771	\$175,521	13.0	13.1	13.2	1.0%	0.0%	0.2%	1.9%	0.5%	0.5%	5,507	5,574	5,641	4.7%	1.2%	1.2%
3.5%	\$2,389,550	\$1,485,078	\$1,526,581	11.5	11.5	12.3	5.4%	3.1%	3.1%	3.0%	3.8%	3.8%	5,387	5,807	5,842	7.1%	7.8%	7.5%
2.1%	\$422,749	\$2,207,062	\$2,704,364	13.0	13.2	13.3	0.1%	0.5%	0.7%	2.0%	0.7%	0.7%						
1.7%	\$1,079,212	\$222,569	\$259,867	12.9	13.0	13.1	3.4%	0.7%	0.8%	1.7%	0.9%	0.8%	5,386	5,496	5,607	4.1%	2.0%	2.0%
1.8%	\$2,043,623	\$1,197,491	\$1,109,532	11.5	11.6	11.8	3.9%	2.2%	2.0%	2.9%	1.5%	1.5%	5,127	5,234	5,464	4.0%	3.3%	3.2%
2.4%	\$3,091,176	\$61,085	\$60,565	10.4	10.6	10.7	30.4%	0.5%	0.5%	-2.9%	1.3%	0.5%	5,048	5,162	5,277	5.0%	2.3%	2.2%
2.6%	\$9,048,712	\$2,411,498	\$2,921,574	9.8	9.8	10.0	14.6%	3.8%	3.4%	4.6%	1.6%	1.4%	5,050	5,188	5,327	5.1%	2.7%	2.7%
2.5%	\$11,139,888	\$2,472,583	\$982,545	9.9	10.0	10.1	16.8%	3.2%	3.2%	4.6%	1.5%	1.4%						
2.1%	\$14,260,823	\$3,893,033	\$2,357,987	9.9	10.0	10.1	9.5%	2.4%	1.4%	4.4%	1.2%	1.2%						
2.9%	\$765,060	\$2,325,373	\$2,529,636	11.8	11.9	11.2	3.8%	1.3%	1.4%	5.7%	1.2%	1.3%	5,332	5,478	5,657	6.7%	2.7%	2.7%
0.7%	\$1,109,256	\$2,154,352	\$2,301,301	21.3	21.8	20.2	0.0%	0.4%	0.4%	2.3%	0.7%	0.7%	5,453	5,607	5,723	2.9%	2.8%	2.8%
2.8%	-\$434,236	\$396,588	-\$308,025	15.3	15.5	15.8	-1.0%	-0.9%	-0.7%	1.8%	1.5%	1.8%						
2.3%	\$37,423,071	\$23,483,150	\$21,075,303	14.2	14.4	14.6	2.9%	1.8%	1.6%	2.3%	1.3%	1.4%						

BCF Rates (c/kWh) at RR

2016 Rates

2016					2017					2018					2019					2020				
FX Cost	Fuel-related			Total	FX Cost	Fuel-related			Total	FX Cost	Fuel-related			Total	FX Cost	Fuel-related			Total	FX Cost	Fuel-related			Total
	BCF	Adjustment	Total			BCF	Adjustment	Total			BCF	Adjustment	Total			BCF	Adjustment	Total			BCF	Adjustment	Total	
\$460,259,589	\$240,558,165	\$0	\$240,558,165	\$700,817,754	\$464,444,528	\$241,838,851	\$0	\$241,838,851	\$706,283,379	\$468,087,652	\$244,008,479	\$0	\$244,008,479	\$712,096,132	\$471,129,931	\$245,816,195	\$0	\$245,816,195	\$716,946,127	\$475,366,114	\$248,300,327	\$0	\$248,300,327	\$723,666,441
\$24,424,349	\$13,683,753	\$0	\$13,683,753	\$38,108,102	\$25,748,772	\$14,515,177	\$0	\$14,515,177	\$40,263,949	\$25,741,311	\$14,493,755	\$0	\$14,493,755	\$40,235,065	\$25,750,608	\$14,483,253	\$0	\$14,483,253	\$40,233,862	\$25,887,450	\$14,556,630	\$0	\$14,556,630	\$40,444,080
\$188,822,672	\$131,932,851	\$0	\$131,932,851	\$320,755,523	\$182,463,420	\$127,498,807	\$0	\$127,498,807	\$309,962,227	\$181,587,951	\$126,887,061	\$0	\$126,887,061	\$308,475,012	\$180,955,225	\$126,444,936	\$0	\$126,444,936	\$307,400,161	\$181,226,794	\$126,634,698	\$0	\$126,634,698	\$307,861,493
\$24,881,649	\$20,335,158	\$0	\$20,335,158	\$45,216,807	\$25,218,945	\$20,787,885	\$0	\$20,787,885	\$46,006,829	\$25,126,457	\$20,645,601	\$0	\$20,645,601	\$45,772,058	\$25,033,969	\$20,503,317	\$0	\$20,503,317	\$45,537,286	\$24,941,910	\$20,361,691	\$0	\$20,361,691	\$45,303,601
\$238,128,670	\$165,951,761	\$0	\$165,951,761	\$404,080,431	\$233,431,137	\$162,801,869	\$0	\$162,801,869	\$396,233,006	\$232,455,719	\$162,026,417	\$0	\$162,026,417	\$394,482,135	\$231,739,803	\$161,431,506	\$0	\$161,431,506	\$393,171,309	\$232,056,154	\$161,553,020	\$0	\$161,553,020	\$393,609,174
\$19,038,685	\$13,061,307	\$0	\$13,061,307	\$32,099,992	\$19,356,297	\$13,281,103	\$0	\$13,281,103	\$32,637,400	\$19,321,840	\$13,257,460	\$0	\$13,257,460	\$32,579,300	\$19,310,991	\$13,250,017	\$0	\$13,250,017	\$32,561,008	\$19,330,188	\$13,263,188	\$0	\$13,263,188	\$32,593,376
\$29,257,033	\$23,209,111	\$0	\$23,209,111	\$52,466,144	\$30,123,594	\$23,440,851	\$0	\$23,440,851	\$53,564,445	\$30,342,802	\$23,611,429	\$0	\$23,611,429	\$53,954,231	\$30,502,261	\$23,735,513	\$0	\$23,735,513	\$54,237,774	\$30,544,767	\$23,768,590	\$0	\$23,768,590	\$54,313,357
\$5,621,129	\$4,560,898	\$0	\$4,560,898	\$10,182,027	\$6,845,904	\$6,120,818	\$0	\$6,120,818	\$12,966,722	\$6,814,788	\$6,071,338	\$0	\$6,071,338	\$12,886,126	\$6,783,672	\$6,021,858	\$0	\$6,021,858	\$12,805,530	\$6,752,700	\$5,972,608	\$0	\$5,972,608	\$12,725,308
\$26,943,177	\$28,677,384	\$0	\$28,677,384	\$55,620,561	\$30,695,058	\$31,386,264	\$0	\$31,386,264	\$62,081,322	\$31,477,707	\$32,064,566	\$0	\$32,064,566	\$63,542,273	\$31,475,343	\$32,060,238	\$0	\$32,060,238	\$63,535,582	\$31,393,935	\$31,911,157	\$0	\$31,911,157	\$63,305,093
\$32,564,306	\$33,238,282	\$0	\$33,238,282	\$65,802,588	\$37,540,962	\$37,507,082	\$0	\$37,507,082	\$75,048,045	\$38,292,495	\$38,135,904	\$0	\$38,135,904	\$76,428,399	\$38,082,097	\$38,146,635	\$0	\$38,082,097	\$76,341,112	\$38,146,635	\$37,883,765	\$0	\$37,883,765	\$76,030,400
\$80,860,024	\$69,508,700	\$0	\$69,508,700	\$150,368,724	\$87,020,853	\$74,229,036	\$0	\$74,229,036	\$161,249,889	\$87,957,136	\$75,004,794	\$0	\$75,004,794	\$162,961,930	\$88,072,268	\$75,067,626	\$0	\$75,067,626	\$163,139,894	\$88,021,590	\$74,915,543	\$0	\$74,915,543	\$162,937,133
\$11,102,264	\$9,047,284	\$0	\$9,047,284	\$20,149,547	\$11,434,475	\$8,887,713	\$0	\$8,887,713	\$20,322,188	\$11,438,861	\$8,895,354	\$0	\$8,895,354	\$20,334,215	\$11,271,608	\$8,604,011	\$0	\$8,604,011	\$19,875,620	\$10,947,912	\$8,040,158	\$0	\$8,040,158	\$18,988,070
\$17,543,292	\$5,745,785	\$0	\$5,745,785	\$23,289,077	\$16,434,272	\$5,497,838	\$0	\$5,497,838	\$21,932,109	\$16,498,166	\$5,403,485	\$0	\$5,403,485	\$21,901,651	\$16,323,375	\$5,346,238	\$0	\$5,346,238	\$21,669,613	\$16,328,230	\$5,347,828	\$0	\$5,347,828	\$21,676,058
\$28,645,556	\$14,793,069	\$0	\$14,793,069	\$43,438,624	\$27,868,747	\$14,385,550	\$0	\$14,385,550	\$42,254,297	\$27,937,027	\$14,298,839	\$0	\$14,298,839	\$42,235,866	\$27,594,983	\$13,950,249	\$0	\$13,950,249	\$41,545,232	\$27,276,142	\$13,387,985	\$0	\$13,387,985	\$40,664,128
\$807,893,839	\$490,811,695	\$0	\$490,811,695	\$1,298,705,534	\$812,765,265	\$493,255,307	\$0	\$493,255,307	\$1,306,020,572	\$816,437,535	\$495,338,528	\$0	\$495,338,528	\$1,311,776,063	\$818,536,985	\$496,265,576	\$0	\$496,265,576	\$1,314,802,562	\$822,720,000	\$498,156,875	\$0	\$498,156,875	\$1,320,876,875

Rate Plan

2016				2017				2018				2019				2020									
FX Cost	Fuel-related		Total	FX Cost	Fuel-related		Total	FX Cost	Fuel-related		Total	FX Cost	Fuel-related		Total	FX Cost	Fuel-related		Total	Unit Rev					
	BCF	Adjustment			BCF	Adjustment			BCF	Adjustment			BCF	Adjustment			BCF	Adjustment							
\$460,259,589	\$240,558,165	\$0	\$240,558,165	\$700,817,754	\$464,444,528	\$228,700,115	\$30,844,844.54	\$259,544,960	\$723,989,488	\$468,087,652	\$315,943,371	-\$43,055,057.92	\$272,888,313	\$740,975,966	\$471,129,931	\$321,240,057	-\$35,072,572.73	\$286,167,485	\$757,297,416	\$475,366,114	\$337,857,647	\$0.0	\$337,857,647	\$813,223,761	17.567
\$24,424,349	\$13,683,753	\$0	\$13,683,753	\$38,108,102	\$25,748,772	\$13,588,817	\$1,566,682	\$15,155,499	\$40,904,272	\$25,741,311	\$17,604,720	-\$1,821,556	\$15,783,164	\$41,524,474	\$25,750,608	\$17,753,529	-\$1,321,466	\$16,432,063	\$42,182,671	\$25,887,450	\$18,633,210	\$0	\$18,633,210	\$44,520,659	16.901
\$188,822,672	\$131,932,851	\$0	\$131,932,851	\$320,755,523	\$182,463,420	\$119,834,100	\$13,695,078	\$133,529,177	\$315,992,597	\$181,587,951	\$153,829,665	-\$19,323,247	\$134,506,418	\$316,094,368	\$180,955,225	\$155,184,722	-\$19,526,401	\$135,658,321	\$316,613,546	\$181,226,794	\$162,938,962	\$0	\$162,938,962	\$344,165,756	14.291
\$24,881,649	\$20,335,158	\$0	\$20,335,158	\$45,216,807	\$25,218,945	\$19,554,329	\$2,833,038	\$22,387,367	\$47,606,312	\$25,126,457	\$24,673,184	-\$708,252	\$23,964,933	\$49,091,390	\$25,033,969	\$24,873,915	\$710,492	\$25,584,407	\$50,618,376	\$24,941,910	\$25,990,002	\$0	\$25,990,002	\$50,931,912	12.513
\$238,128,670	\$165,951,761	\$0	\$165,951,761	\$404,080,431	\$233,431,137	\$152,977,246	\$18,094,798	\$171,072,044	\$404,503,181	\$232,455,719	\$196,107,569	-\$21,853,055	\$174,254,514	\$406,710,233	\$231,739,803	\$197,812,165	-\$20,137,375	\$177,674,790	\$409,414,594	\$232,056,154	\$207,562,174	\$0	\$207,562,174	\$439,618,328	14.279
\$19,038,685	\$13,061,307	\$0	\$13,061,307	\$32,099,992	\$19,356,297	\$12,548,882	\$1,274,126	\$13,823,008	\$33,179,305	\$19,321,840	\$16,132,494	-\$2,052,070	\$14,080,424	\$33,402,264	\$19,310,991	\$16,350,955	-\$1,994,171	\$14,356,784	\$33,667,775	\$19,330,188	\$17,181,770	\$0	\$17,181,770	\$36,511,958	14.247
\$29,257,033	\$23,209,111	\$0	\$23,209,111	\$52,466,144	\$30,123,594	\$22,045,695	\$2,340,478	\$24,386,173	\$54,509,767	\$30,342,802	\$28,181,928	-\$2,817,472	\$25,364,456	\$55,707,258	\$30,502,261	\$28,776,404	-\$2,461,875	\$26,314,529	\$56,816,790	\$30,544,767	\$30,312,060	\$0	\$30,312,060	\$60,856,827	12.619
\$5,621,129	\$4,560,898	\$0	\$4,560,898	\$10,182,027	\$6,845,904	\$5,751,294	\$676,004	\$6,427,299	\$13,273,203	\$6,814,788	\$7,178,323	-\$658,823	\$6,519,499	\$13,334,288	\$6,783,672	\$7,236,831	-\$625,651	\$6,611,180	\$13,394,852	\$6,752,700	\$7,561,463	\$0	\$7,561,463	\$14,314,164	11.521
\$26,943,177	\$28,677,384	\$0	\$28,677,384	\$55,620,561	\$30,695,058	\$29,491,425	\$3,482,790	\$32,974,215	\$63,669,273	\$31,477,707	\$37,910,885	-\$3,307,821	\$34,603,064	\$66,080,771	\$31,475,343	\$38,528,725	-\$3,001,319	\$35,527,407	\$67,002,750	\$31,393,935	\$40,400,286	\$0	\$40,400,286	\$71,794,221	10.815
\$32,564,306	\$33,238,282	\$0	\$33,238,282	\$65,802,588	\$37,540,962	\$35,242,719	\$4,158,794	\$39,401,514	\$76,942,476	\$38,292,495	\$45,089,208	-\$3,966,644	\$41,122,564	\$79,415,059	\$38,259,016	\$45,765,556	-\$3,626,970	\$42,138,587	\$80,397,602	\$38,146,635	\$47,961,749	\$0	\$47,961,749	\$86,108,385	10.926
\$80,860,024	\$69,508,700	\$0	\$69,508,700	\$150,368,724	\$87,020,853	\$69,837,296	\$7,773,398	\$77,610,695	\$164,631,548	\$87,957,136	\$89,403,630	-\$8,836,186	\$80,567,444	\$168,524,581	\$88,072,268	\$90,892,916	-\$8,083,016	\$82,809,900	\$170,882,168	\$88,021,590	\$95,455,580	\$0	\$95,455,580	\$183,477,170	12.018
\$11,102,264	\$9,047,284	\$0	\$9,047,284	\$20,149,547	\$11,434,475	\$8,387,562	\$1,092,570	\$9,480,133	\$20,914,608	\$11,438,861	\$11,134,818	-\$1,386,837	\$9,747,982	\$21,186,843	\$11,271,608	\$10,890,680	-\$1,205,081	\$9,685,598	\$20,957,207	\$10,947,912	\$10,661,670	\$0	\$10,661,670	\$21,609,582	13.434
\$17,543,292	\$5,745,785	\$0	\$5,745,785	\$23,289,077	\$16,434,272	\$5,163,406	\$492,103	\$5,655,509	\$22,089,781	\$16,498,166	\$6,660,842	-\$944,875	\$5,715,967	\$22,214,133	\$16,323,375	\$6,699,251	-\$886,882	\$5,812,369	\$22,135,744	\$16,328,230	\$7,009,686	\$0	\$7,009,686	\$23,337,916	23.132
\$28,645,556	\$14,793,069	\$0	\$14,793,069	\$43,438,624	\$27,868,747	\$13,550,968	\$1,584,674	\$15,135,642	\$43,004,388	\$27,937,027	\$17,795,660	-\$2,331,711	\$15,463,949	\$43,400,976	\$17,599,931	\$17,599,931	-\$2,091,963	\$15,497,967	\$22,002,951	\$27,276,142	\$17,071,356	\$0	\$17,071,356	\$44,947,498	17.172
\$807,893,839	\$490,811,695	\$0	\$490,811,695	\$1,298,705,534	\$812,765,265	\$465,065,625	\$58,297,714.80	\$523,363,340	\$1,336,128,605	\$816,437,535	\$619,250,230	-\$76,076,010	\$543,174,220	\$1,359,611,755	\$818,536,985	\$627,535,070	-\$65,384,927	\$562,150,143	\$1,380,687,128	\$822,720,000	\$658,546,756	\$0	\$658,546,756	\$1,481,266,756	15.599

Percent Change				
FAM Classes	2017	2018	2019	2020
Residential	1.5%	1.5%	1.5%	6.4%
Small General	1.6%	1.6%	1.6%	5.0%
General Demand	0.5%	0.5%	0.5%	8.5%
<u>Large General</u>	<u>3.7%</u>	<u>3.7%</u>	<u>3.7%</u>	<u>1.2%</u>
Total Commercial	1.0%	1.0%	1.0%	7.3%
Small Industrial	0.9%	0.9%	0.9%	8.3%
Medium Industrial	1.5%	1.5%	1.5%	7.0%
Large Industrial				
Firm	1.1%	1.1%	1.1%	7.5%
Interruptible	1.4%	1.4%	1.4%	7.5%
<u>Large Industrial Total</u>	<u>1.4%</u>	<u>1.4%</u>	<u>1.4%</u>	<u>7.5%</u>
Total Industrial	1.3%	1.3%	1.3%	7.5%
Municipal	1.2%	1.2%	1.2%	8.1%
<u>Unmetered</u>	<u>0.7%</u>	<u>0.7%</u>	<u>0.7%</u>	<u>5.4%</u>
Total Other	1.0%	1.0%	1.0%	6.7%
Total FAM Classes	1.3%	1.3%	1.3%	6.8%

2017 Revenue Forecast at 2016 Rates

Class	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Total 2017
Residential	\$80,558,908	\$72,710,510	\$71,463,316	\$56,939,421	\$49,233,597	\$42,063,214	\$43,349,597	\$42,612,526	\$40,898,990	\$46,426,662	\$56,095,096	\$71,810,902	\$674,162,738
Time-Of-Use	4,417,320	4,098,899	3,787,739	2,913,835	2,227,156	1,521,130	1,382,096	1,412,689	1,393,832	1,862,104	2,590,697	4,513,144	32,120,641
Total Residential	84,976,228	76,809,409	75,251,055	59,853,256	51,460,753	43,584,344	44,731,692	44,025,215	42,292,822	48,288,766	58,685,793	76,324,046	706,283,379
Small General	4,353,019	4,085,513	3,934,713	3,330,283	3,067,316	2,865,305	3,027,024	2,977,867	2,696,938	2,921,149	3,134,314	3,870,507	40,263,949
General Demand	30,476,813	28,489,419	28,574,559	24,909,782	23,067,307	23,323,534	25,094,331	24,270,097	22,667,098	24,119,125	25,926,474	29,043,688	309,962,227
Large General	3,841,022	3,633,346	3,836,854	3,673,632	3,777,029	3,753,214	4,098,595	4,280,436	4,021,388	3,733,363	3,607,836	3,750,113	46,006,829
Total Commercial	38,670,855	36,208,278	36,346,125	31,913,698	29,911,653	29,942,054	32,219,949	31,528,400	29,385,425	30,773,638	32,668,623	36,664,308	396,233,006
Small Industrial	3,017,276	2,853,841	2,806,083	2,624,081	2,640,714	2,749,939	2,805,945	2,552,196	2,479,533	2,311,586	2,720,072	3,076,134	32,637,400
Medium Industrial	4,570,379	4,281,853	4,450,156	4,343,249	4,252,416	4,534,188	4,586,873	4,581,903	4,467,908	4,474,714	4,501,536	4,519,269	53,564,445
Large Industrial - Firm	1,204,922	1,030,660	1,116,293	1,074,451	1,086,317	1,061,600	1,094,895	1,077,950	1,043,371	1,007,779	1,001,766	1,166,720	12,966,722
Large Industrial - Interruptible	4,845,162	4,436,714	4,865,339	4,662,579	4,952,659	5,335,804	5,393,804	5,993,985	5,843,127	5,469,995	5,391,154	4,890,999	62,081,322
Total Industrial	13,637,739	12,603,068	13,237,871	12,704,360	12,932,106	13,681,531	13,881,516	14,206,034	13,833,939	13,264,075	13,614,528	13,653,122	161,249,889
Municipal	2,043,629	1,893,587	1,894,691	1,640,709	1,504,438	1,448,715	1,537,749	1,541,405	1,487,375	1,628,804	1,706,992	1,994,093	20,322,188
Unmetered	1,870,514	1,813,883	1,872,974	1,875,979	1,885,695	1,770,443	1,818,049	1,874,673	1,824,728	1,685,712	1,879,153	1,760,307	21,932,109
Other Total	3,914,143	3,707,470	3,767,665	3,516,687	3,390,133	3,219,158	3,355,797	3,416,078	3,312,103	3,314,516	3,586,145	3,754,400	42,254,297
Total Above the Line Customers	141,198,965	129,328,226	128,602,717	107,988,002	97,694,644	90,427,087	94,188,956	93,175,728	88,824,290	95,640,994	108,555,089	130,395,875	1,306,020,572
GRLF													
Load Retention Tariff													
Shore Power													
1PT-RTP													
Total Below The Line	3,968,514	5,524,490	6,370,817	5,253,088	5,056,588	5,666,423	5,617,286	6,995,925	5,578,063	5,455,804	5,617,791	4,593,610	65,698,399
Exports	218,264	547,990	802,564	86,263	21,881	-	-	20,647	18,574	350,366	232,138	277,563	-
Total Revenue	145,385,742.60	135,400,705	135,776,097	113,327,353	102,773,113	96,093,511	99,806,241	100,192,299	94,420,927	101,447,164	114,405,018	135,267,049	1,374,295,221

2018 Revenue Forecast at 2016 Rates

Class	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Total 2018
Residential	\$81,120,585	\$73,291,020	\$72,020,754	\$57,257,294	\$49,445,305	\$42,224,697	\$43,529,857	\$42,755,292	\$41,007,462	\$46,635,041	\$56,504,440	\$72,375,532	\$678,167,278
Time-Of-Use	4,661,903	4,326,471	3,998,211	3,077,625	2,354,418	1,610,709	1,463,885	1,495,990	1,475,747	1,968,620	2,735,535	4,759,740	33,928,853
Total Residential	85,782,488	77,617,491	76,018,964	60,334,919	51,799,723	43,835,405	44,993,742	44,251,282	42,483,209	48,603,661	59,239,975	77,135,273	712,096,132
Small General	4,348,693	4,081,634	3,931,057	3,327,366	3,065,056	2,863,533	3,025,127	2,975,999	2,695,719	2,919,822	3,132,923	3,868,136	40,235,065
General Demand	30,330,584	28,352,725	28,437,457	24,790,264	22,956,629	23,211,627	24,973,927	24,153,648	22,558,340	24,003,400	25,802,077	28,904,335	308,475,012
Large General	3,821,214	3,614,846	3,816,971	3,654,875	3,758,109	3,734,410	4,077,476	4,258,275	4,000,912	3,714,624	3,589,574	3,730,773	45,772,058
Total Commercial	38,500,490	36,049,205	36,185,484	31,772,505	29,779,794	29,809,570	32,076,530	31,387,922	29,254,971	30,637,846	32,524,574	36,503,244	394,482,135
Small Industrial	3,011,904	2,848,761	2,801,087	2,619,410	2,636,013	2,745,044	2,800,949	2,547,653	2,475,119	2,307,471	2,715,230	3,070,658	32,579,300
Medium Industrial	4,603,638	4,313,012	4,482,540	4,374,855	4,283,361	4,567,183	4,620,251	4,615,245	4,500,421	4,507,276	4,534,293	4,552,155	53,954,231
Large Industrial - Firm	1,197,513	1,024,300	1,109,246	1,067,737	1,079,530	1,055,014	1,088,047	1,071,239	1,036,928	1,001,610	995,642	1,159,322	12,886,126
Large Industrial - Interruptible	5,132,988	4,719,947	5,170,089	4,960,358	5,254,521	5,335,590	5,385,354	5,989,419	5,841,801	5,470,184	5,390,890	4,891,131	63,542,273
Total Industrial	13,946,044	12,906,020	13,562,962	13,022,360	13,253,424	13,702,830	13,894,601	14,223,556	13,854,269	13,286,542	13,636,055	13,673,266	162,961,930
Municipal	2,044,938	1,894,763	1,895,868	1,641,667	1,505,273	1,449,509	1,538,619	1,542,279	1,488,202	1,629,753	1,708,008	1,995,336	20,334,215
Unmetered	1,853,715	1,797,965	1,855,964	1,858,863	1,868,358	1,755,039	1,801,772	1,857,361	1,808,182	1,671,455	1,861,451	1,744,540	21,734,666
Other Total	3,898,653	3,692,728	3,751,833	3,500,531	3,373,630	3,204,548	3,340,391	3,399,640	3,296,384	3,301,208	3,569,459	3,739,877	42,068,881
Total Above the Line Customers	142,127,675	130,265,444	129,519,243	108,630,315	98,206,571	90,552,354	94,305,264	93,262,400	88,888,833	95,829,258	108,970,062	131,051,660	1,311,609,078
GRLF													
Load Retention Tariff													
Shore Power													
1PT-RTP													
Total Below The Line	3,910,185	4,871,659	4,968,983	4,199,170	4,235,526	4,250,479	4,598,631	4,829,126	4,152,652	4,360,356	5,672,482	5,696,322	55,745,572
Exports	233,552	392,130	599,124	72,971	17,103	-	-	16,579	14,744	290,565	100,809	108,460	-
Total Revenue	146,271,412	135,529,233	135,087,350	112,902,456	102,459,200	94,802,833	98,903,895	98,108,105	93,056,229	100,480,179	114,743,353	136,856,442	1,369,200,688

2019 Revenue Forecast at 2016 Rates

Class	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Total 2019
Residential	\$81,552,522	\$73,747,583	\$72,457,887	\$57,493,841	\$49,594,645	\$42,335,995	\$43,656,546	\$42,849,166	\$41,072,184	\$46,783,859	\$56,823,707	\$72,818,582	\$681,186,515
Time-Of-Use	4,908,612	4,556,153	4,210,686	3,243,374	2,483,648	1,702,222	1,547,530	1,581,128	1,559,432	2,076,860	2,882,033	5,007,932	35,759,612
Total Residential	86,461,134	78,303,736	76,668,572	60,737,216	52,078,293	44,038,217	45,204,075	44,430,294	42,631,616	48,860,719	59,705,740	77,826,514	716,946,127
Small General	4,347,419	4,080,607	3,930,139	3,326,732	3,064,883	2,863,698	3,025,290	2,976,154	2,696,313	2,920,479	3,133,679	3,868,468	40,233,862
General Demand	30,224,900	28,253,933	28,338,369	24,703,885	22,876,638	23,130,748	24,886,907	24,069,486	22,479,738	23,919,763	25,712,172	28,803,621	307,400,161
Large General	3,801,407	3,596,346	3,797,088	3,636,117	3,739,188	3,715,606	4,056,357	4,236,114	3,980,435	3,695,884	3,571,311	3,711,432	45,537,286
Total Commercial	38,373,725	35,930,886	36,065,596	31,666,733	29,680,710	29,710,052	31,968,555	31,281,754	29,156,486	30,536,126	32,417,163	36,383,522	393,171,309
Small Industrial	3,010,213	2,847,161	2,799,515	2,617,939	2,634,533	2,743,502	2,799,377	2,546,222	2,473,729	2,306,176	2,713,706	3,068,934	32,561,008
Medium Industrial	4,627,831	4,335,678	4,506,097	4,397,846	4,305,871	4,591,185	4,644,532	4,639,500	4,524,072	4,530,963	4,558,122	4,576,078	54,237,774
Large Industrial - Firm	1,190,104	1,017,940	1,102,198	1,061,023	1,072,743	1,048,428	1,081,199	1,064,528	1,030,485	995,441	989,517	1,151,924	12,805,530
Large Industrial - Interruptible	5,120,637	4,723,983	5,174,572	4,964,895	5,255,870	5,336,345	5,377,136	5,985,548	5,841,432	5,471,399	5,391,597	4,892,169	63,535,582
Total Industrial	13,948,785	12,924,762	13,582,381	13,041,704	13,269,017	13,719,460	13,902,244	14,235,798	13,869,717	13,303,979	13,652,942	13,689,105	163,139,894
Municipal	1,995,032	1,849,921	1,850,990	1,605,114	1,473,431	1,419,249	1,505,440	1,508,981	1,456,675	1,593,590	1,669,282	1,947,916	19,875,620
Unmetered	1,847,183	1,791,820	1,849,024	1,851,770	1,861,037	1,748,818	1,794,929	1,849,787	1,800,925	1,664,393	1,850,770	1,733,742	21,644,198
Other Total	3,842,215	3,641,740	3,700,014	3,456,884	3,334,468	3,168,067	3,300,370	3,358,767	3,257,600	3,257,982	3,520,052	3,681,658	41,519,817
Total Above the Line Customers	142,625,859	130,801,125	130,016,564	108,902,537	98,362,488	90,635,797	94,375,243	93,306,613	88,915,419	95,958,807	109,295,897	131,580,799	1,314,777,147
GRLF	-	-	-	-	-	-	-	-	-	-	-	-	-
Load Retention Tariff													
Shore Power													
1PT-RTP													
Total Below The Line	3,080,372	5,809,711	4,467,596	4,814,185	5,508,411	4,504,614	4,827,616	5,638,029	4,583,974	4,457,371	5,066,656	4,071,538	56,830,072
Exports	176,438	345,945	773,626	75,240	16,897	-	-	16,930	14,505	287,940	110,266	122,613	1,940,400
Total Revenue	145,882,670	136,956,781	135,257,786	113,791,962	103,887,796	95,140,411	99,202,860	98,961,572	93,513,898	100,704,117	114,472,819	135,774,949	1,373,547,618

2020 Revenue Forecast at 2016 Rates

Class	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	2020
Residential	\$82,201,824	\$74,390,816	\$73,079,730	\$57,888,947	\$49,885,355	\$42,568,094	\$43,906,437	\$43,067,806	\$41,259,165	\$47,063,834	\$57,287,990	\$73,446,534	\$686,046,532
Time-Of-Use	5,158,363	4,788,804	4,425,955	3,411,719	2,615,361	1,796,061	1,633,389	1,668,464	1,645,237	2,187,248	3,030,730	5,258,577	37,619,909
Total Residential	87,360,187	79,179,621	77,505,685	61,300,666	52,500,716	44,364,155	45,539,826	44,736,270	42,904,401	49,251,082	60,318,720	78,705,112	723,666,441
Small General	4,369,540	4,101,424	3,950,194	3,343,580	3,080,668	2,878,650	3,041,175	2,991,748	2,710,716	2,936,239	3,150,766	3,889,380	40,444,080
General Demand	30,270,260	28,296,335	28,380,898	24,740,959	22,910,971	23,165,462	24,924,257	24,105,609	22,513,475	23,955,661	25,750,760	28,846,848	307,861,493
Large General	3,781,690	3,577,932	3,777,298	3,617,446	3,720,355	3,696,890	4,035,336	4,214,055	3,960,053	3,677,232	3,553,133	3,692,182	45,303,601
Total Commercial	38,421,491	35,975,691	36,108,389	31,701,985	29,711,994	29,741,002	32,000,768	31,311,412	29,184,243	30,569,131	32,454,660	36,428,409	393,609,174
Small Industrial	3,013,206	2,849,992	2,802,298	2,620,542	2,637,152	2,746,230	2,802,160	2,548,753	2,476,188	2,308,468	2,716,403	3,071,985	32,593,376
Medium Industrial	4,634,280	4,341,720	4,512,376	4,403,974	4,311,871	4,597,583	4,651,004	4,645,965	4,530,376	4,537,277	4,564,474	4,582,455	54,313,357
Large Industrial - Firm	1,182,729	1,011,610	1,095,183	1,054,341	1,065,987	1,041,873	1,074,383	1,057,848	1,024,072	989,301	983,421	1,144,560	12,725,308
Large Industrial - Interruptible	5,102,047	4,707,040	5,155,633	4,946,960	5,236,643	5,316,890	5,357,615	5,963,824	5,820,269	5,451,568	5,372,041	4,874,564	63,305,093
Total Industrial	17,891,626	17,351,901	18,742,603	17,975,910	17,665,985	20,450,777	18,670,414	17,910,385	18,053,922	17,220,849	18,870,642	17,721,672	218,526,685
Municipal	1,898,446	1,763,134	1,764,133	1,534,370	1,411,806	1,360,685	1,441,228	1,444,536	1,395,659	1,523,601	1,594,333	1,856,139	18,988,070
Unmetered	1,853,488	1,797,125	1,853,488	1,855,656	1,864,327	1,751,601	1,797,125	1,851,320	1,801,461	1,664,888	1,851,320	1,734,258	21,676,058
Other Total	3,751,934	3,560,259	3,617,621	3,390,026	3,276,134	3,112,286	3,238,353	3,295,857	3,197,119	3,188,489	3,445,653	3,590,397	40,664,128
Total In-Province Revenue	147,425,238	136,067,471	135,974,298	114,368,587	103,154,829	97,668,220	99,449,361	97,253,924	93,339,686	100,229,551	115,089,675	136,445,589	1,376,466,427
GRLF													
Load Retention Tariff													
Shore Power													
IPT-RTP													
Total Electric Revenue	147,633,769	136,650,299	136,857,160	114,445,542	103,176,241	97,668,220	99,449,361	97,270,274	93,352,786	100,524,655	115,254,564	136,687,293	1,378,970,164
Exports	208,531	582,828	882,862	76,955	21,412	-	-	16,350	13,100	295,104	164,889	241,704	2,503,737
Total Revenue	150,430,238	139,255,499	139,708,878	117,567,428	106,183,176	100,603,156	102,638,587	100,051,778	96,446,940	103,417,922	117,918,821	139,483,149	1,413,705,572

2016 AA and BA Rates			
Rate Class	Actual Adjustment (AA) (cents per KWh)	Balance Adjustment (BA) (cents per KWh)	FAM AA/BA Combined
Domestic Service	0.367	(0.213)	0.154
Small General	0.308	(0.308)	0.000
General	0.271	(0.089)	0.182
Large General	0.007	(0.026)	(0.019)
Small Industrial	0.211	(0.109)	0.102
Medium Industrial	0.016	0.018	0.034
Large Industrial			
Firm	0.011	0.117	0.128
Interruptible	0.011	0.097	0.108
Municipal	0.331	(0.142)	0.189
Unmetered	0.222	(0.221)	0.001

Base Cost of Fuel Cost of Service Allocation of Fuel Expenses among Rate Classes																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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	3 CP Demands		Energy Requirement				Purchased Power- Biomass				Purchased Power other than Biomass and Wind			Purchased Power - Wind								Total Fuel-related costs before Exports, O&M and Foreign Exchange				Export Revenues		O&M costs recovered in fuels		Foreign Exchange		Total Fuel-related costs		Adjusted for R/C ratio and Unbalanced		Relative Share		Adjusted for R/C ratio and Balanced		cents per kWh																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	R/C Ratios	KW Demand	Relative Shares	KWh Energy	Relative Shares	KWh Sales	Fuel Costs before Purchased Power	Imports (allocated on monthly energy requirements)	Bio-fuel Related (allocated on monthly energy requirements)	Energy-related (allocated on annual energy requirements)	Demand-related	Total	Fixed Energy-related	Fixed Demand-related	Total	ERIS	Energy-related	Demand-related	Total	Total																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									

REDACTED (CONFIDENTIAL INFORMATION REMOVED)

Base Cost of Fuel Cost of Service Allocation of Fuel Expenses among Rate Classes

FOR THE YEAR ENDING DECEMBER 31, 2018

Base Cost of Fuel																														Cost of Service										Allocation of Fuel Expenses among Rate Classes									
FOR THE YEAR ENDING DECEMBER 31, 2018																																																	
COLUMN	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH																		
FORMULA																																																	
	Cost Allocation Factors										Fuel-related Costs from COS															Fuel Costs used for FAM purposes																							
	3 CP Demands			Energy Requirement				Purchased Power- Biomass				Maritime Link			Purchased Power other than Biomass and Wind			Purchased Power - Wind					Total Fuel-related costs before Exports, OM&G and Foreign Exchange		OM&G costs recovered in fuels		Foreign Exchange		Total Fuel-related costs	Adjusted for R/C ratio and Unbalanced		Relative Share		Adjusted for R/C ratio and Balanced		cents per kWh													
	R/C Ratios	KW Demand	Relative Shares	KWh Energy	Relative Shares	kWhs Sales	Fuel Costs before Purchased Power	Imports (allocated on monthly energy requirements)	Bio-fuel Related (allocated on monthly energy requirements)	Energy-related (allocated on annual energy requirements)	Demand-related	Total	Fixed Energy-related	Fixed Demand-related	Total	Fixed Energy-related	Fixed Demand-related	Total	ERIS	Energy-related	Demand-related	Total	Total		Export Revenues																								
Rate Class																																																	
FAM Rate Classes (ATL)	98.9%	3,682,079	62.6%	4,966,118,065	48.9%	4,549,374,177	\$106,317,156	\$11,500,337	\$12,585,950	\$7,769,802	\$5,844,300	\$26,240,141	\$43,910,081	\$45,168,633	\$89,078,714	\$7,254,585	\$5,494,195	\$12,748,779	\$17,571,554	\$46,273,851	\$12,149,558	\$58,423,409	\$75,994,962	\$320,880,000		\$-1,262,086	\$0	\$0	\$310,518,003	\$315,843,546	51.0%	\$315,943,371	6.945																
Residential	104.6%	135,232	2.3%	284,054,036	2.8%	262,284,429	\$5,963,130	\$693,370	\$674,289	\$445,317	\$2,162,112	\$1,335,826	\$2,516,654	\$1,659,643	\$4,176,298	\$2,415,788	\$201,875	\$617,663	\$1,007,090	\$2,652,131	\$4,105,638	\$4,105,638	\$73,160	\$16,891,526		\$-71,160	\$0	\$0	\$16,891,767	\$17,599,157	2.9%	\$17,604,720	6.712																
General Demand	102.9%	1,141,890	19.4%	2,562,685,897	25.3%	2,413,075,233	\$53,011,519	\$6,443,218	\$5,806,902	\$4,017,572	\$1,824,873	\$11,649,347	\$22,704,815	\$14,007,741	\$36,712,557	\$3,751,166	\$1,703,865	\$5,455,031	\$9,085,815	\$23,927,062	\$3,767,833	\$27,694,895	\$36,780,710	\$150,052,382		\$-634,328	\$0	\$0	\$149,418,054	\$153,781,061	24.8%	\$153,829,665	6.375																
Large General	99.4%	165,935	2.8%	437,480,233	4.3%	412,717,201	\$8,914,564	\$885,846	\$265,184	\$1,879,069	\$3,875,976	\$2,005,554	\$5,911,529	\$640,368	\$247,559	\$887,967	\$1,551,054	\$4,084,627	\$5,637,528	\$4,632,155	\$6,183,209	\$24,826,763	\$24,865,389		\$0	\$0	\$0	\$24,865,389	4.0%	\$24,873,184	5.978																		
Small Industrial	102.5%	119,707	2.0%	270,776,424	2.7%	256,174,479	\$5,571,305	\$693,932	\$5,571,305	\$1,217,742	\$2,398,018	\$1,469,460	\$3,867,478	\$178,620	\$674,072	\$852,692	\$2,528,162	\$394,990	\$2,923,151	\$3,863,169	\$15,584,000	\$63,901	\$0	\$15,740,188		\$0	\$0	\$16,127,397	2.6%	\$16,132,494	6.201																		
Medium Industrial	96.5%	189,153	3.2%	479,080,450	5.0%	479,080,450	\$10,286,062	\$1,317,475	\$1,078,246	\$792,331	\$302,289	\$2,172,866	\$4,477,760	\$2,320,373	\$6,798,133	\$793,791	\$1,026,035	\$1,791,871	\$4,718,807	\$624,139	\$5,342,946	\$7,134,816	\$28,731,416		\$-117,743	\$0	\$0	\$28,613,675	\$28,773,024	4.6%	\$28,181,928	5.883																	
Large Industrial	97.4%	276,480	4.7%	829,796,648	8.2%	793,335,241	\$16,793,993	\$2,203,214	\$11,737,367	\$3,480,086	\$7,351,721	\$3,991,618	\$10,743,339	\$1,214,611	\$412,548	\$1,627,159	\$2,941,948	\$8,659,764	\$46,449,503	\$7,747,480	\$912,285	\$8,659,764	\$45,074,962		\$0	\$0	\$0	\$46,259,197	\$45,074,962	7.3%	\$45,089,208	5.883																	
Municipal	97.7%	107,510	1.8%	187,141,983	1.8%	177,961,110	\$3,902,924	\$458,713	\$441,879	\$293,386	\$171,813	\$307,078	\$1,658,035	\$1,318,841	\$2,976,876	\$273,832	\$160,420	\$434,352	\$663,498	\$1,747,291	\$354,745	\$2,102,036	\$2,765,534		\$11,445,477		\$-548,631	\$0	\$0	\$11,396,847	\$11,131,300	1.8%	\$11,134,818	6.257															
Unretained	100.0%	61,202	1.0%	111,011,860	1.1%	101,939,295	\$2,262,967	\$287,893	\$240,559	\$174,035	\$87,907	\$612,501	\$893,540	\$751,537	\$1,726,077	\$192,498	\$91,415	\$283,913	\$393,584	\$1,036,488	\$202,150	\$1,238,638	\$1,630,230		\$6,658,727		\$0	\$0	\$6,660,842	\$6,660,842	1.1%	\$6,660,842	5.334																
Total	100.0%	5,879,309	100.0%	10,144,458,563	100.0%	9,445,941,584	\$212,029,142	\$24,739,450	\$24,095,176	\$15,903,663	\$9,395,819	\$49,394,658	\$89,877,600	\$72,122,400	\$162,000,000	\$14,849,088	\$8,772,781	\$23,621,869	\$35,966,435	\$94,715,896	\$19,399,641	\$114,115,537	\$150,081,972		\$621,867,091		\$0	\$0	\$619,250,230	\$619,054,573	100.0%	\$619,250,230	6.556																
Purchased Power Allocation Factors:									48.8%	32.2%	19.0%	51.2%	55.5%	44.5%	100.0%	62.9%	37.1%	100.0%																															
Non-FAM Rate Classes																																																	
GRLF																																																	
1P - RTP																																																	
Load Retention																																																	
Shore Power																																																	
Total Below-the-line		203,065		1,115,450,222		1,092,962,231	\$50,256,660	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$50,256,660	\$0					\$50,256,660																			
In Province Total		6,082,374		11,259,908,785		10,538,903,815	\$262,285,802	\$24,739,450	\$24,095,176	\$15,903,663	\$9,395,819	\$49,394,658	\$89,877,600	\$72,122,400	\$162,000,000	\$14,849,088	\$8,772,781	\$23,621,869	\$35,966,435	\$94,715,896	\$19,399,641	\$114,115,537	\$150,081,972	\$672,123,751	\$-2,616,861	\$0	\$0	\$669,506,890		\$669,506,890		6.353																	
Exports	100.0%	-				50,000,000																																											
Grand Total		6,082,374		11,309,908,785		10,588,903,815	\$262,285,802	\$24,739,450	\$24,095,176	\$15,903,663	\$9,395,819	\$49,394,658	\$89,877,600	\$72,122,400	\$162,000,000	\$14,849,088	\$8,772,781	\$23,621,869	\$35,966,435	\$94,715,896	\$19,399,641	\$114,115,537	\$150,081,972	\$672,123,751	\$-2,616,861	\$0	\$0	\$669,506,890		\$669,506,890		6.323																	

REDACTED Fuel Stability Plan CA IR-2 Attachment 2 Page 9 of 19

FOR THE YEAR ENDING DECEMBER 31, 2019

[illegible]

1	Column	A	B	C	D	E
2	Rate Classes	DSM Smoothing Adjustment from 2014	Outstanding Amount at the end of 2015	Repayment of outstanding RSA amounts through the FAM		
3	ATL			2016	2017	2018
4	Residential	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
5						
6	Small General	(\$640,113)	(\$659,316)	\$233,088	\$233,088	\$233,088
7	General Demand	\$3,292,613	\$3,391,391	(\$1,198,960)	(\$1,198,960)	(\$1,198,960)
8	Large General	(\$3,547,727)	(\$3,654,159)	\$1,291,856	\$1,291,856	\$1,291,856
9	Total Commercial	(\$895,227)	(\$922,084)	\$325,985	\$325,985	\$325,985
10						
11	Small Industrial	\$547,065	\$563,477	(\$199,206)	(\$199,206)	(\$199,206)
12	Medium Industrial	\$292,125	\$300,889	(\$106,373)	(\$106,373)	(\$106,373)
13	Total Large Industrial	\$0	\$0	\$0	\$0	\$0
14	ELI 2PT - RTP*	\$0	\$0	\$0	\$0	\$0
15	Total Industrial	\$839,190	\$864,366	(\$305,580)	(\$305,580)	(\$305,580)
16						
17	Municipal	\$0	\$0			
18	Unmetered	\$56,037	\$57,718	(\$20,405)	(\$20,405)	(\$20,405)
19	Total Other	\$56,037	\$57,718	(\$20,405)	(\$20,405)	(\$20,405)
20						
21	Total ATL Classes	\$0	\$0	\$0	\$0	\$0
22						
23	BTL (Electric)					
24	GRLF					
25	Shore Power					
26	1P-RTP					
27	Total BTL (Electric) Classes	\$0	\$0	\$0	\$0	\$0
28						
29	In Province Total	\$0	\$0	\$0	\$0	\$0
30						
31						

Assumptions
 Interest0.03

MONTHLY REQUIREMENTS, SALES AND LOSSES BY RATE CLASSES IN GWh

	2017 Jan	2017 Feb	2017 Mar	2017 Apr	2017 May	2017 Jun	2017 Jul	2017 Aug	2017 Sep	2017 Oct	2017 Nov	2017 Dec	Annual Total
Requirements													
Residential non ToD	573	515	501	389	331	273	282	279	263	308	384	511	4,607.55
Residential ToD	44	41	41	31	21	13	12	12	12	18	27	47	318.96
Small General	32	30	29	24	22	20	21	21	18	20	22	28	285.51
General Demand	253	238	238	207	192	193	208	204	188	200	213	243	2,577.33
Large General	37	35	37	35	36	35	40	42	38	35	34	37	440.50
Small Industrial	25	24	23	22	22	23	23	21	20	19	22	26	271.50
Medium Industrial	43	40	41	41	41	43	43	43	41	42	42	43	501.75
Large Industrial With Interruptible	65	59	66	62	67	70	71	77	74	70	69	66	816.10
<i>Large Industrial Firm</i>	12	11	12	11	11	11	11	11	11	10	10	12	133.37
<i>Large Industrial Interruptible Only</i>	53	48	54	51	56	59	59	66	64	60	59	53	682.73
Gen. Repl. & Load Follow.													
RTP													
Shore Power													
LRT													
Municipal	20	18	18	15	13	12	13	14	13	15	16	20	186.98
Unmetered	10	9	10	10	10	9	9	10	9	9	10	9	113.32
In Province Total:	1,179	1,091	1,107	928	851	784	817	821	774	834	938	1,113	11,234.96
Sales													
Residential non ToD	519	466	457	358	303	254	263	258	246	284	352	459	4,216.99
Residential ToD	40	37	37	28	20	12	11	11	11	16	25	42	291.93
Small General	29	27	26	22	20	18	19	19	17	19	20	26	262.67
General Demand	239	224	223	195	180	182	196	192	178	188	201	226	2,424.71
Large General	35	33	35	33	33	33	37	39	36	33	32	34	415.56
Small Industrial	24	23	22	21	21	22	22	20	19	18	21	24	256.63
Medium Industrial	41	38	39	39	38	41	41	41	39	40	40	40	475.62
Large Industrial With Interruptible	63	56	63	60	63	67	68	74	71	67	66	63	780.25
<i>Large Industrial Firm</i>	12	10	11	11	11	10	11	11	10	10	10	12	127.33
<i>Large Industrial Interruptible Only</i>	51	46	52	49	53	56	57	63	61	57	57	51	652.92
Gen. Repl. & Load Follow.													
RTP													
Shore Power													
LRT													
Municipal	19	17	17	14	12	12	13	13	12	14	15	18	177.81
Unmetered	9	9	9	9	9	8	9	9	9	8	9	8	103.72
Total:	1,154	1,066	1,091	929	858	808	840	845	806	851	945	1,085	10,498.86

		2017 Jan	2017 Feb	2017 Mar	2017 Apr	2017 May	2017 Jun	2017 Jul	2017 Aug	2017 Sep	2017 Oct	2017 Nov	2017 Dec	Annual Total
Losses														
Residential non ToD		54.3	49.1	44.2	30.9	27.5	18.7	19.3	21.3	17.2	23.9	31.9	52.3	390.55
Residential ToD		4.0	3.7	3.7	2.5	1.7	0.8	0.7	0.8	0.7	1.3	2.2	4.8	27.04
Small General		2.7	2.6	2.4	1.9	1.8	1.3	1.5	1.7	1.2	1.4	1.7	2.6	22.84
General Demand		14.8	14.2	15.2	11.8	11.9	10.5	11.8	12.6	9.6	11.5	11.8	17.0	152.62
Large General		2.3	2.0	2.3	1.9	2.1	1.7	2.3	2.5	1.7	2.0	1.9	2.4	24.93
Small Industrial		1.3	1.3	1.4	1.2	1.3	1.1	1.1	1.2	0.9	1.0	1.2	1.7	14.87
Medium Industrial		2.0	2.1	2.3	2.1	2.4	2.1	2.0	2.4	1.9	2.2	2.1	2.5	26.13
Large Industrial With Interruptible		2.5	2.5	3.0	2.8	3.4	3.0	3.0	3.8	2.9	3.3	2.7	3.0	35.85
Large Industrial Firm		0.5	0.5	0.6	0.5	0.6	0.4	0.5	0.5	0.4	0.5	0.4	0.6	6.04
Large Industrial Interruptible Only		2.0	2.0	2.4	2.3	2.9	2.5	2.5	3.3	2.5	2.8	2.2	2.4	29.81
Gen. Repl. & Load Follow.														
RTP														
Shore Power														
LRT														
Municipal		1.0	0.9	1.0	0.8	0.7	0.6	0.6	0.7	0.5	0.7	0.7	1.1	9.17
Unmetered		0.9	0.8	0.8	0.8	0.9	0.8	0.8	0.9	0.7	0.6	0.8	0.9	9.60
Total:		87.26	80.76	78.25	58.54	55.67	42.44	45.11	49.81	39.40	49.98	58.85	90.03	736.10
Losses as %Sales														
Residential non ToD		10.5%	10.5%	9.7%	8.6%	9.1%	7.3%	7.3%	8.3%	7.0%	8.4%	9.1%	11.4%	9.3%
Residential ToD		10.0%	9.9%	10.0%	8.6%	8.7%	6.7%	6.7%	7.4%	6.4%	8.1%	8.8%	11.4%	9.3%
Small General		9.4%	9.6%	9.1%	8.7%	9.3%	7.1%	7.6%	8.7%	7.2%	7.4%	8.6%	10.0%	8.7%
General Demand		6.2%	6.3%	6.8%	6.0%	6.6%	5.8%	6.0%	6.6%	5.4%	6.1%	5.9%	7.5%	6.3%
Large General		6.5%	6.0%	6.5%	5.8%	6.2%	5.0%	6.1%	6.3%	4.6%	6.1%	5.8%	6.9%	6.0%
Small Industrial		5.4%	5.9%	6.3%	5.9%	6.4%	5.2%	5.0%	5.9%	4.8%	5.8%	5.7%	7.1%	5.8%
Medium Industrial		5.0%	5.4%	5.8%	5.5%	6.4%	5.1%	5.0%	5.8%	4.8%	5.6%	5.2%	6.3%	5.5%
Large Industrial With Interruptible		3.9%	4.5%	4.7%	4.7%	5.4%	4.4%	4.4%	5.2%	4.1%	4.9%	4.0%	4.9%	4.6%
Large Industrial Firm		4.3%	4.6%	5.0%	4.8%	5.4%	4.0%	4.4%	5.0%	4.3%	5.4%	4.6%	5.2%	4.7%
Large Industrial Interruptible Only		3.8%	4.4%	4.7%	4.7%	5.4%	4.5%	4.4%	5.2%	4.0%	4.8%	3.9%	4.8%	4.6%
Gen. Repl. & Load Follow.														
RTP														
Shore Power														
LRT														
Municipal		5.0%	4.9%	5.6%	5.3%	5.5%	4.7%	4.6%	5.5%	4.4%	5.1%	4.6%	6.2%	5.2%
Unmetered		9.7%	9.5%	8.9%	8.6%	10.0%	9.6%	9.9%	9.8%	8.3%	8.0%	8.5%	10.3%	9.3%
% Loss:		7.6%	7.6%	7.2%	6.3%	6.5%	5.3%	5.4%	5.9%	4.9%	5.9%	6.2%	8.3%	7.0%

MONTHLY REQUIREMENTS, SALES AND LOSSES BY RATE CLASSES IN GWh

	2018 Jan	2018 Feb	2018 Mar	2018 Apr	2018 May	2018 Jun	2018 Jul	2018 Aug	2018 Sep	2018 Oct	2018 Nov	2018 Dec	Annual Total
Requirements													
Residential non ToD	575	517	503	390	331	273	283	279	263	308	385	513	4,621.19
Residential ToD	46	43	43	32	22	14	12	12	13	19	28	49	334.93
Small General	32	30	28	24	22	20	21	21	18	20	22	28	284.05
General Demand	252	237	237	206	191	192	207	203	187	199	212	241	2,562.69
Large General	37	34	37	35	35	35	39	41	38	35	34	36	437.48
Small Industrial	25	24	23	22	22	23	23	21	20	19	22	26	270.78
Medium Industrial	43	40	42	41	41	43	43	43	42	42	42	43	505.40
Large Industrial With Interruptible	68	61	69	65	70	70	70	77	74	70	69	66	829.79
<i>Large Industrial Firm</i>	12	11	12	11	11	11	11	11	11	10	10	12	133.46
<i>Large Industrial Interruptible Only</i>	56	51	57	54	58	59	59	66	64	60	59	53	696.33
Gen. Repl. & Load Follow.													
RTP													
Shore Power													
LRT													
Municipal	20	18	18	15	13	12	13	14	13	15	16	20	187.14
Unmetered	10	9	9	9	10	9	9	10	9	8	9	9	111.01
In Province Total:	1,184	1,096	1,112	932	854	784	817	820	773	834	939	1,115	11,259.91
Sales													
Residential non ToD	522	469	460	360	304	255	264	258	247	285	354	463	4,241.93
Residential ToD	42	39	39	30	21	13	12	12	12	17	26	45	307.44
Small General	29	27	26	22	20	18	19	19	17	19	20	25	262.28
General Demand	237	223	222	195	179	181	195	191	177	187	200	225	2,413.08
Large General	35	33	35	33	33	33	37	39	36	33	32	34	412.72
Small Industrial	24	23	22	21	21	22	22	20	19	18	21	24	256.17
Medium Industrial	41	38	39	39	38	41	41	41	40	40	40	40	479.08
Large Industrial With Interruptible	66	59	66	62	66	67	67	73	71	67	66	63	793.34
<i>Large Industrial Firm</i>	12	10	11	11	11	10	11	11	10	10	10	12	126.30
<i>Large Industrial Interruptible Only</i>	54	49	55	52	56	56	57	63	61	57	57	51	667.03
Gen. Repl. & Load Follow.													
RTP													
Shore Power													
LRT													
Municipal	19	17	17	14	12	12	13	13	12	14	15	18	177.96
Unmetered	9	8	9	9	9	8	8	9	8	8	9	8	101.94
Total:	1,164	1,076	1,101	937	865	809	840	845	806	852	948	1,090	10,538.90

		2018 Jan	2018 Feb	2018 Mar	2018 Apr	2018 May	2018 Jun	2018 Jul	2018 Aug	2018 Sep	2018 Oct	2018 Nov	2018 Dec	Annual Total
Losses														
Residential non ToD		52.8	47.6	42.9	30.0	26.7	18.1	18.8	20.7	16.7	23.2	30.9	50.8	379.26
Residential ToD		4.1	3.8	3.8	2.5	1.7	0.8	0.7	0.8	0.7	1.4	2.2	4.9	27.49
Small General		2.6	2.5	2.3	1.8	1.7	1.2	1.4	1.6	1.2	1.3	1.7	2.4	21.77
General Demand		14.5	13.9	14.9	11.6	11.6	10.3	11.6	12.4	9.5	11.2	11.6	16.6	149.61
Large General		2.3	2.0	2.3	1.9	2.1	1.7	2.3	2.4	1.7	2.0	1.9	2.4	24.76
Small Industrial		1.3	1.3	1.4	1.2	1.3	1.1	1.1	1.2	0.9	1.0	1.2	1.7	14.60
Medium Industrial		2.0	2.1	2.3	2.1	2.4	2.1	2.1	2.4	1.9	2.2	2.1	2.6	26.32
Large Industrial With Interruptible		2.5	2.6	3.0	2.9	3.5	3.0	3.0	3.9	2.9	3.4	2.7	3.1	36.45
Large Industrial Firm		0.6	0.5	0.6	0.6	0.7	0.5	0.6	0.7	0.5	0.6	0.5	0.7	7.16
Large Industrial Interruptible Only		1.9	2.0	2.4	2.3	2.8	2.5	2.5	3.2	2.4	2.7	2.2	2.4	29.29
Gen. Repl. & Load Follow.														
RTP														
Shore Power														
LRT														
Municipal		1.0	0.9	1.0	0.8	0.7	0.6	0.6	0.7	0.5	0.7	0.7	1.1	9.18
Unmetered		0.8	0.8	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.6	0.7	0.8	9.07
Total:		85.31	78.97	76.60	57.35	54.57	41.64	44.24	48.87	38.66	49.02	57.63	88.12	721.00
Losses as %Sales														
Residential non ToD		10.1%	10.1%	9.3%	8.3%	8.8%	7.1%	7.1%	8.0%	6.8%	8.1%	8.7%	11.0%	8.9%
Residential ToD		9.7%	9.6%	9.6%	8.3%	8.4%	6.5%	6.5%	7.1%	6.2%	7.8%	8.5%	11.0%	8.9%
Small General		9.0%	9.2%	8.7%	8.3%	8.8%	6.8%	7.3%	8.3%	6.9%	7.1%	8.2%	9.6%	8.3%
General Demand		6.1%	6.2%	6.7%	5.9%	6.5%	5.7%	5.9%	6.5%	5.3%	6.0%	5.8%	7.4%	6.2%
Large General		6.5%	6.0%	6.5%	5.8%	6.2%	5.0%	6.1%	6.3%	4.6%	6.1%	5.8%	6.9%	6.0%
Small Industrial		5.3%	5.8%	6.2%	5.8%	6.3%	5.1%	4.9%	5.8%	4.7%	5.7%	5.6%	7.0%	5.7%
Medium Industrial		5.0%	5.4%	5.8%	5.5%	6.4%	5.1%	5.0%	5.8%	4.8%	5.6%	5.2%	6.3%	5.5%
Large Industrial With Interruptible		3.8%	4.3%	4.6%	4.6%	5.3%	4.5%	4.5%	5.3%	4.1%	5.0%	4.1%	5.0%	4.6%
Large Industrial Firm		5.0%	5.4%	5.8%	5.6%	6.4%	4.9%	5.3%	6.2%	5.2%	6.5%	5.5%	6.1%	5.7%
Large Industrial Interruptible Only		3.6%	4.1%	4.3%	4.4%	5.0%	4.4%	4.3%	5.1%	4.0%	4.8%	3.8%	4.7%	4.4%
Gen. Repl. & Load Follow.														
RTP														
Shore Power														
LRT														
Municipal		5.0%	4.9%	5.6%	5.3%	5.5%	4.7%	4.6%	5.5%	4.4%	5.1%	4.6%	6.2%	5.2%
Unmetered		9.3%	9.1%	8.6%	8.3%	9.6%	9.2%	9.5%	9.4%	8.0%	7.6%	8.2%	9.9%	8.9%
% Loss:		7.3%	7.3%	7.0%	6.1%	6.3%	5.1%	5.3%	5.8%	4.8%	5.8%	6.1%	8.1%	6.8%

MONTHLY REQUIREMENTS, SALES AND LOSSES BY RATE CLASSES IN GWh

	2017 Jan	2017 Feb	2017 Mar	2017 Apr	2017 May	2017 Jun	2017 Jul	2017 Aug	2017 Sep	2017 Oct	2017 Nov	2017 Dec	Annual Total
Requirements													
Residential non ToD	578	521	506	391	332	274	284	280	264	309	387	517	4,643.32
Residential ToD	49	45	45	34	24	14	13	13	13	20	30	52	352.01
Small General	32	30	28	24	22	20	21	21	18	20	22	28	283.85
General Demand	251	236	236	205	190	191	206	203	186	198	211	240	2,553.76
Large General	37	34	37	35	35	34	39	41	37	35	34	36	434.47
Small Industrial	25	24	23	22	22	23	23	21	20	19	22	26	270.62
Medium Industrial	43	41	42	41	41	43	44	43	42	42	42	43	508.06
Large Industrial With Interruptible	68	61	69	65	70	70	70	77	74	70	69	66	828.62
<i>Large Industrial Firm</i>	<i>12</i>	<i>10</i>	<i>12</i>	<i>11</i>	<i>11</i>	<i>11</i>	<i>11</i>	<i>11</i>	<i>11</i>	<i>10</i>	<i>10</i>	<i>12</i>	<i>132.50</i>
<i>Large Industrial Interruptible Only</i>	<i>56</i>	<i>51</i>	<i>57</i>	<i>54</i>	<i>58</i>	<i>59</i>	<i>59</i>	<i>66</i>	<i>64</i>	<i>60</i>	<i>59</i>	<i>53</i>	<i>696.12</i>
Gen. Repl. & Load Follow.													
RTP													
Shore Power													
LRT													
Municipal	20	18	18	14	13	12	13	13	12	14	15	19	181.01
Unmetered	9	9	9	9	10	9	9	9	9	8	9	9	109.94
In Province Total:	1,188	1,100	1,116	934	855	784	817	820	773	834	942	1,119	11,281.10
Sales													
Residential non ToD	525	472	463	361	305	256	265	259	247	286	356	465	4,260.12
Residential ToD	44	41	41	31	22	14	12	12	13	18	27	47	322.96
Small General	29	27	26	22	20	18	19	19	17	19	20	25	262.09
General Demand	237	222	221	194	178	181	195	190	177	187	200	224	2,404.67
Large General	35	32	35	33	33	33	37	39	36	33	32	34	409.87
Small Industrial	24	23	22	21	21	22	22	20	19	18	21	24	256.03
Medium Industrial	41	38	40	39	39	41	41	41	40	40	40	40	481.60
Large Industrial With Interruptible	65	59	66	62	66	67	67	73	71	67	66	62	792.22
<i>Large Industrial Firm</i>	<i>12</i>	<i>10</i>	<i>11</i>	<i>10</i>	<i>11</i>	<i>10</i>	<i>11</i>	<i>10</i>	<i>10</i>	<i>10</i>	<i>10</i>	<i>11</i>	<i>125.27</i>
<i>Large Industrial Interruptible Only</i>	<i>54</i>	<i>49</i>	<i>55</i>	<i>52</i>	<i>56</i>	<i>56</i>	<i>56</i>	<i>63</i>	<i>61</i>	<i>57</i>	<i>57</i>	<i>51</i>	<i>666.94</i>
Gen. Repl. & Load Follow.													
RTP													
Shore Power													
LRT													
Municipal	19	17	17	14	12	11	12	12	12	14	15	18	172.13
Unmetered	9	8	9	9	9	8	8	9	8	8	9	8	100.86
Total:	1,167	1,079	1,105	939	866	809	839	844	805	852	950	1,093	10,555.51

		2017 Jan	2017 Feb	2017 Mar	2017 Apr	2017 May	2017 Jun	2017 Jul	2017 Aug	2017 Sep	2017 Oct	2017 Nov	2017 Dec	Annual Total
Losses														
Residential non ToD		53.3	48.1	43.3	30.3	27.0	18.3	19.0	20.9	16.8	23.4	31.3	51.3	383.20
Residential ToD		4.3	4.0	4.0	2.6	1.8	0.9	0.8	0.9	0.8	1.4	2.3	5.2	29.05
Small General		2.6	2.5	2.3	1.8	1.7	1.2	1.4	1.6	1.2	1.3	1.7	2.4	21.75
General Demand		14.4	13.8	14.9	11.5	11.6	10.3	11.5	12.3	9.4	11.2	11.5	16.6	149.09
Large General		2.3	1.9	2.3	1.9	2.0	1.7	2.2	2.4	1.7	2.0	1.8	2.3	24.59
Small Industrial		1.3	1.3	1.4	1.2	1.3	1.1	1.1	1.2	0.9	1.0	1.2	1.7	14.59
Medium Industrial		2.1	2.1	2.3	2.2	2.5	2.1	2.1	2.4	1.9	2.2	2.1	2.6	26.46
Large Industrial With Interruptible		2.5	2.6	3.0	2.9	3.5	3.0	3.0	3.9	2.9	3.4	2.7	3.1	36.40
Large Industrial Firm		0.6	0.5	0.6	0.6	0.7	0.5	0.6	0.7	0.5	0.6	0.5	0.7	7.22
Large Industrial Interruptible Only		1.9	2.0	2.4	2.3	2.8	2.5	2.4	3.2	2.4	2.7	2.2	2.4	29.18
Gen. Repl. & Load Follow.														
RTP														
Shore Power														
LRT														
Municipal		0.9	0.8	0.9	0.7	0.7	0.5	0.6	0.7	0.5	0.7	0.7	1.1	8.88
Unmetered		0.8	0.8	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.6	0.7	0.8	9.08
Total:		86.00	79.60	77.17	57.73	54.88	41.81	44.41	49.06	38.82	49.27	58.01	88.83	725.59
Losses as %Sales														
Residential non ToD		10.2%	10.2%	9.4%	8.4%	8.8%	7.2%	7.2%	8.1%	6.8%	8.2%	8.8%	11.0%	9.0%
Residential ToD		9.7%	9.7%	9.7%	8.4%	8.5%	6.5%	6.5%	7.2%	6.2%	7.9%	8.5%	11.1%	9.0%
Small General		9.0%	9.2%	8.7%	8.3%	8.8%	6.8%	7.3%	8.3%	6.9%	7.1%	8.2%	9.6%	8.3%
General Demand		6.1%	6.2%	6.7%	5.9%	6.5%	5.7%	5.9%	6.5%	5.3%	6.0%	5.8%	7.4%	6.2%
Large General		6.5%	6.0%	6.5%	5.8%	6.2%	5.0%	6.1%	6.3%	4.6%	6.1%	5.8%	6.9%	6.0%
Small Industrial		5.3%	5.8%	6.2%	5.8%	6.3%	5.1%	4.9%	5.8%	4.7%	5.7%	5.6%	7.0%	5.7%
Medium Industrial		5.0%	5.4%	5.8%	5.5%	6.4%	5.1%	5.0%	5.8%	4.8%	5.6%	5.2%	6.3%	5.5%
Large Industrial With Interruptible		3.8%	4.3%	4.6%	4.6%	5.3%	4.5%	4.5%	5.3%	4.1%	5.0%	4.1%	5.0%	4.6%
Large Industrial Firm		5.1%	5.5%	5.9%	5.7%	6.5%	5.0%	5.4%	6.3%	5.3%	6.6%	5.6%	6.2%	5.8%
Large Industrial Interruptible Only		3.6%	4.1%	4.3%	4.4%	5.0%	4.4%	4.3%	5.1%	3.9%	4.7%	3.8%	4.7%	4.4%
Gen. Repl. & Load Follow.														
RTP														
Shore Power														
LRT														
Municipal		5.0%	4.9%	5.6%	5.3%	5.5%	4.7%	4.6%	5.5%	4.4%	5.1%	4.6%	6.2%	5.2%
Unmetered		9.4%	9.2%	8.7%	8.4%	9.7%	9.3%	9.6%	9.5%	8.0%	7.7%	8.3%	10.1%	9.0%
% Loss:		7.4%	7.4%	7.0%	6.2%	6.3%	5.2%	5.3%	5.8%	4.8%	5.8%	6.1%	8.1%	6.9%

MONTHLY REQUIREMENTS, SALES AND LOSSES BY RATE CLASSES IN GWh

	2020 Jan	2020 Feb	2020 Mar	2020 Apr	2020 May	2020 Jun	2020 Jul	2020 Aug	2020 Sep	2020 Oct	2020 Nov	2020 Dec	Annual Total
Requirements													
Residential non ToD	582	524	510	394	334	275	285	281	265	311	390	520	4,670.92
Residential ToD	51	47	47	36	25	15	14	14	14	21	31	54	368.50
Small General	32	30	28	24	22	20	21	21	18	20	22	28	285.02
General Demand	251	236	236	206	190	191	207	203	186	198	211	241	2,557.59
Large General	37	34	37	34	35	34	39	41	37	34	33	36	431.46
Small Industrial	25	24	23	22	22	23	23	21	20	19	22	26	270.89
Medium Industrial	43	41	42	41	41	43	44	43	42	42	42	43	508.77
Large Industrial With Interruptible	67	61	68	65	69	69	70	77	74	70	68	65	824.30
Large Industrial Firm	12	10	12	11	11	11	11	11	10	10	10	12	131.48
Large Industrial Interruptible Only	55	51	57	54	58	58	59	66	63	60	58	53	692.82
Gen. Repl. & Load Follow.													
RTP													
Shore Power													
LRT													
Municipal	18	17	17	14	12	11	12	12	12	13	14	18	169.15
Unmetered	9	9	9	9	10	9	9	9	9	8	9	9	109.87
In Province Total:	1,192	1,105	1,121	937	856	785	817	821	773	836	945	1,124	11,311.99
Sales													
Residential non ToD	529	477	467	364	307	257	266	260	248	287	359	469	4,290.87
Residential ToD	47	43	43	33	23	14	13	13	13	19	29	49	338.52
Small General	29	27	26	22	20	18	20	19	17	19	20	26	263.42
General Demand	237	222	222	194	179	181	195	191	177	187	200	224	2,408.28
Large General	34	32	34	33	33	33	37	38	36	32	32	34	407.04
Small Industrial	24	23	22	21	21	22	22	20	19	18	21	24	256.29
Medium Industrial	41	38	40	39	39	41	42	41	40	40	40	41	482.27
Large Industrial With Interruptible	65	59	65	62	66	66	67	73	71	67	66	62	788.09
Large Industrial Firm	11	10	11	10	10	10	11	10	10	10	9	11	124.25
Large Industrial Interruptible Only	54	49	55	52	55	56	56	63	61	57	56	51	663.84
Gen. Repl. & Load Follow.													
RTP													
Shore Power													
LRT													
Municipal	18	16	16	13	11	11	12	12	11	13	14	17	160.85
Unmetered	9	8	9	9	9	8	8	9	8	8	9	8	100.89
Total:	1,172	1,084	1,109	941	867	810	840	845	806	853	953	1,098	10,589.54

		2020 Jan	2020 Feb	2020 Mar	2020 Apr	2020 May	2020 Jun	2020 Jul	2020 Aug	2020 Sep	2020 Oct	2020 Nov	2020 Dec	Annual Total
Losses														
Residential non ToD		52.9	47.7	43.0	30.1	26.8	18.2	18.8	20.8	16.7	23.2	31.0	50.9	380.05
Residential ToD		4.5	4.1	4.1	2.7	1.9	0.9	0.8	0.9	0.8	1.5	2.4	5.3	29.98
Small General		2.6	2.5	2.3	1.8	1.7	1.2	1.4	1.6	1.2	1.3	1.6	2.4	21.60
General Demand		14.4	13.9	14.9	11.5	11.6	10.3	11.6	12.3	9.4	11.2	11.5	16.6	149.31
Large General		2.2	1.9	2.3	1.9	2.0	1.6	2.2	2.4	1.6	2.0	1.8	2.3	24.42
Small Industrial		1.3	1.3	1.4	1.2	1.3	1.1	1.1	1.2	0.9	1.0	1.2	1.7	14.61
Medium Industrial		2.1	2.1	2.3	2.2	2.5	2.1	2.1	2.4	1.9	2.2	2.1	2.6	26.50
Large Industrial With Interruptible		2.5	2.5	3.0	2.8	3.5	3.0	3.0	3.9	2.9	3.3	2.7	3.1	36.21
Large Industrial Firm		0.6	0.5	0.7	0.6	0.7	0.5	0.6	0.7	0.5	0.6	0.5	0.7	7.23
Large Industrial Interruptible Only		1.9	2.0	2.3	2.3	2.8	2.5	2.4	3.2	2.4	2.7	2.2	2.4	28.98
Gen. Repl. & Load Follow.														
RTP														
Shore Power														
LRT														
Municipal		0.9	0.8	0.9	0.7	0.6	0.5	0.5	0.6	0.5	0.7	0.6	1.0	8.30
Unmetered		0.8	0.8	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.6	0.7	0.8	8.98
Total:		85.61	79.25	76.85	57.49	54.64	41.63	44.21	48.83	38.65	49.05	57.76	88.47	722.45
Losses as %Sales														
Residential non ToD		10.0%	10.0%	9.2%	8.3%	8.7%	7.1%	7.1%	8.0%	6.7%	8.1%	8.6%	10.8%	8.9%
Residential ToD		9.6%	9.5%	9.5%	8.3%	8.4%	6.4%	6.4%	7.1%	6.1%	7.7%	8.4%	10.9%	8.9%
Small General		8.9%	9.1%	8.6%	8.2%	8.7%	6.7%	7.2%	8.2%	6.8%	7.0%	8.1%	9.4%	8.2%
General Demand		6.1%	6.2%	6.7%	5.9%	6.5%	5.7%	5.9%	6.5%	5.3%	6.0%	5.8%	7.4%	6.2%
Large General		6.5%	6.0%	6.5%	5.8%	6.2%	5.0%	6.1%	6.3%	4.6%	6.1%	5.8%	6.9%	6.0%
Small Industrial		5.3%	5.8%	6.2%	5.8%	6.3%	5.1%	4.9%	5.8%	4.7%	5.7%	5.6%	7.0%	5.7%
Medium Industrial		5.0%	5.4%	5.8%	5.5%	6.4%	5.1%	5.0%	5.8%	4.8%	5.6%	5.2%	6.3%	5.5%
Large Industrial With Interruptible		3.8%	4.3%	4.6%	4.6%	5.3%	4.5%	4.5%	5.3%	4.1%	5.0%	4.1%	5.0%	4.6%
Large Industrial Firm		5.1%	5.6%	6.0%	5.8%	6.6%	5.0%	5.5%	6.4%	5.4%	6.7%	5.7%	6.2%	5.8%
Large Industrial Interruptible Only		3.6%	4.1%	4.3%	4.4%	5.0%	4.4%	4.3%	5.1%	3.9%	4.7%	3.8%	4.7%	4.4%
Gen. Repl. & Load Follow.														
RTP														
Shore Power														
LRT														
Municipal		5.0%	4.9%	5.6%	5.3%	5.5%	4.7%	4.6%	5.5%	4.4%	5.1%	4.6%	6.2%	5.2%
Unmetered		9.3%	9.1%	8.6%	8.3%	9.6%	9.2%	9.5%	9.4%	8.0%	7.6%	8.2%	9.9%	8.9%
% Loss:		7.3%	7.3%	6.9%	6.1%	6.3%	5.1%	5.3%	5.8%	4.8%	5.7%	6.1%	8.1%	6.8%

REDACTED (CONFIDENTIAL INFORMATION REMOVED)

2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)
NSPI Responses to Consumer Advocate Information Requests

CONFIDENTIAL (Attachment Only)

1 **Request IR-3:**

2
3 **Reference p. 23, Figure 2.**

4
5 (a) **Please provide in an electronic spreadsheet, with all cell formulas and file linkages**
6 **intact, a revised version of Figure 2 reflecting the correction described in NS**
7 **Power's March 21, 2016 letter to the UARB. Please provide copies of all linked**
8 **spreadsheet files.**

9
10 (b) **Please provide copies of all workpapers, including electronic spreadsheets with cell**
11 **formulas and file linkages intact, relied on to derive the revised version of Figure 2.**

12
13 (c) **Please state whether the values shown in the revised Figure 2 represent percentage**
14 **changes in base cost of fuel revenues, base energy and (where applicable) demand**
15 **revenues, or total base revenues inclusive of customer-charge revenues (where**
16 **applicable).**

17
18 **Response IR-3:**

19
20 (a-b) **Please refer to Partially Confidential Attachment 1.**

21
22 (c) **The values shown in revised Figure 2 represent percentage changes in total base revenues**
23 **inclusive of customer charge revenues where applicable.**

2017 REVENUE ANALYSIS																					
Rate Classes	2017 Sales (GWh's)	Revenues at 2016 rates						Revenues at 2017 rates						Revenue Variance				Revenue % Var			
		Base Cost Rates	FAM AA Riders	FAM AA	FAM BA Riders	FAM BA	Total	Base Cost Rates	2016 BCF	2017 BCF	FAM AA	FAM BA	Total	Base Cost Rates	FAM AA	FAM BA	Total	Base Cost Rates	FAM AA	FAM BA	Total
FAM Classes																					
Residential	4,508.9	\$706,283,379	0.367	\$16,547,747	0.213	(\$9,604,006)	\$713,227,121	\$723,989,488	5.364	5.756	-	-	\$723,989,488	\$17,706,108	(\$16,547,747)	\$9,604,006	\$10,762,367	2.5%	-2.3%	1.3%	1.5%
Small General	262.7	\$40,263,949	0.308	\$809,030	0.308	(\$809,030)	\$40,263,949	\$40,777,661	5.526	5.722	-	-	\$40,777,661	\$513,712	(\$809,030)	\$809,030	\$513,712	1.3%	-2.0%	2.0%	1.3%
General Demand	2,424.7	\$309,962,227	0.271	\$6,570,962	0.089	(\$2,157,991)	\$314,375,198	\$316,653,666	5.258	5.534	-	-	\$316,653,666	\$6,691,439	(\$6,570,962)	\$2,157,991	\$2,278,468	2.1%	-2.1%	0.7%	0.7%
Large General ⁽¹⁾	415.6	\$46,006,829	0.007	\$29,089	0.026	(\$108,046)	\$45,927,873	\$46,707,409	5.002	5.171	-	-	\$46,707,409	\$700,580	(\$29,089)	\$108,046	\$779,536	1.5%	-0.1%	0.2%	1.7%
Total Commercial	3,102.9	\$396,233,006		\$7,409,081		(\$3,075,067)	\$400,567,020	\$404,138,737			-	-	\$404,138,737	\$7,905,731	(\$7,409,081)	\$3,075,067	\$3,571,717	2.0%	-1.8%	0.8%	0.9%
Small Industrial	256.6	\$32,637,400	0.211	\$541,492	0.109	(\$279,728)	\$32,899,163	\$33,288,160	5.175	5.429	-	-	\$33,288,160	\$650,760	(\$541,492)	\$279,728	\$388,996	2.0%	-1.6%	0.9%	1.2%
Medium Industrial ⁽¹⁾	475.6	\$53,564,445	0.016	\$76,099	0.018	\$85,611	\$53,726,156	\$54,385,133	4.928	5.101	-	-	\$54,385,133	\$820,688	(\$76,099)	(\$85,611)	\$658,977	1.5%	-0.1%	-0.2%	1.2%
Large Industrial ⁽¹⁾																					
Firm	127.3	\$12,966,722	0.011	\$14,006	0.117	\$148,977	\$13,129,705	\$13,232,114	4.807	5.015	-	-	\$13,232,114	\$265,391	(\$14,006)	(\$148,977)	\$102,408	2.0%	-0.1%	-1.1%	0.8%
Interruptible	652.9	\$62,081,322	0.011	\$71,822	0.097	\$633,336	\$62,786,480	\$63,418,852	4.807	5.012	-	-	\$63,418,852	\$1,337,530	(\$71,822)	(\$633,336)	\$632,372	2.1%	-0.1%	-1.0%	1.0%
Large Industrial Total	780.3	\$75,048,045	0.011	\$85,828	0.097	\$782,312	\$75,916,185	\$76,650,966	4.807		-	-	\$76,650,966	\$1,602,921	(\$85,828)	(\$782,312)	\$734,781	2.1%	-0.1%	-1.0%	1.0%
Total Industrial	1,512.5	\$161,249,889		\$703,419		\$588,196	\$162,541,504	\$164,324,258			-	-	\$164,324,258	\$3,074,369	(\$703,419)	(\$588,196)	\$1,782,754	1.9%	-0.4%	-0.4%	1.1%
Municipal	177.8	\$20,322,188	0.331	\$588,545	0.142	(\$252,488)	\$20,658,246	\$20,914,608	4.998	5.332	-	-	\$20,914,608	\$592,420	(\$588,545)	\$252,488	\$256,362	2.9%	-2.8%	1.2%	1.2%
Unmetered ⁽²⁾	103.7	\$21,932,109	0.222	\$230,257	0.221	(\$229,220)	\$21,933,146	\$22,101,080	5.301	5.464	-	-	\$22,101,080	\$168,971	(\$230,257)	\$229,220	\$167,934	0.8%	-1.0%	1.0%	0.8%
Total Other	281.5	\$42,254,297		\$818,802		(\$481,707)	\$42,591,392	\$43,015,688			-	-	\$43,015,688	\$761,391	(\$818,802)	\$481,707	\$424,296	1.8%	-1.9%	1.1%	1.0%
Total FAM Classes	9,405.9	\$1,306,020,572		\$25,479,049		(\$12,572,585)	\$1,318,927,037	\$1,335,468,171			-	-	\$1,335,468,171 2.25%	\$29,447,599	(\$25,479,049)	\$12,572,585	\$16,541,134	2.2%	-1.9%	1.0%	1.3%
BTL																					
GRLF																					
1P-RTP																					
Shore Power																					
LRT																					
Total BTL Classes	1,093.0	\$65,698,399		\$0		\$0	\$65,698,399	\$65,698,399	4.705	5.509	-	-	\$65,698,399	\$0	\$0	\$0	\$0	0%	0%	0%	0%
In Province Total	10,498.9	\$1,371,718,971		\$25,479,049		(\$12,572,585)	\$1,384,625,436	\$1,401,166,570			-	-	\$1,401,166,570	\$29,447,599	(\$25,479,049)	\$12,572,585	\$16,541,134	2.1%	-1.8%	0.9%	1.2%
Export	48.5	\$2,266,650		\$0		\$0	\$2,266,650	\$2,266,650			-	-	\$2,266,650	\$0	\$0	\$0	\$0	0.0%	0.0%	0.0%	0.0%
Total Electric Sales	10,547.4	\$1,373,985,621		\$25,479,049		(\$12,572,585)	\$1,386,892,086	\$1,403,433,220	5.191	4.980	-	-	\$1,403,433,220	\$29,447,599	(\$25,479,049)	\$12,572,585	\$16,541,134	2.1%	-1.8%	0.9%	1.2%

2018 REVENUE ANALYSIS																					
Rate Classes	2018 Sales (GWh's)	Revenues at 2017 rates					Revenues at 2018 rates					Revenue Variance				Revenue % Var					
		Base Cost Rates	FAM AA Riders	FAM AA	FAM BA Riders	FAM BA	Total	Base Cost Rates	2017 BCF	2018 BCF EEC	FAM AA	FAM BA	Total	Base Cost Rates	FAM AA	FAM BA	Total	Base Cost Rates	FAM AA	FAM BA	Total
FAM Classes																					
Residential	4,549.4	\$729,961,088	-			-	\$729,961,088	\$740,975,966	5.756	5.998	-	-	\$740,975,966	\$11,014,877	-	-	\$11,014,877	1.5%	0.0%	0.0%	1.5%
Small General	262.3	\$40,748,019	-			-	\$40,748,019	\$41,267,908	5.722	5.920	-	-	\$41,267,908	\$519,888	-	-	\$519,888	1.3%	0.0%	0.0%	1.3%
General Demand	2,413.1	\$315,134,345	-			-	\$315,134,345	\$317,418,315	5.534	5.629	-	-	\$317,418,315	\$2,283,970	-	-	\$2,283,970	0.7%	0.0%	0.0%	0.7%
Large General ⁽¹⁾	412.7	\$46,467,842	-			-	\$46,467,842	\$47,256,543	5.171	5.362	-	-	\$47,256,543	\$788,701	-	-	\$788,701	1.7%	0.0%	0.0%	1.7%
Total Commercial	3,088.1	\$402,350,207	-			-	\$402,350,207	\$405,942,767			-	-	\$405,942,767	\$3,592,560	-	-	\$3,592,560	0.9%	0.0%	0.0%	0.9%
Small Industrial	256.2	\$33,228,902	-			-	\$33,228,902	\$33,621,797	5.429	5.582	-	-	\$33,621,797	\$392,895	-	-	\$392,895	1.2%	0.0%	0.0%	1.2%
Medium Industrial ⁽¹⁾	479.1	\$54,780,891	-			-	\$54,780,891	\$55,452,804	5.101	5.241	-	-	\$55,452,804	\$671,914	-	-	\$671,914	1.2%	0.0%	0.0%	1.2%
Large Industrial ⁽¹⁾																					
Firm	126.3	\$13,149,372	-			-	\$13,149,372	\$13,251,934	5.015	5.097	-	-	\$13,251,934	\$102,562	-	-	\$102,562	0.8%	0.0%	0.0%	0.8%
Interruptible	667.0	\$64,908,709	-			-	\$64,908,709	\$65,562,456	5.012	5.110	-	-	\$65,562,456	\$653,747	-	-	\$653,747	1.0%	0.0%	0.0%	1.0%
Large Industrial Total	793.3	\$78,058,081	-			-	\$78,058,081	\$78,814,390	-		-	-	\$78,814,390	\$756,309	-	-	\$756,309	1.0%	0.0%	0.0%	1.0%
Total Industrial	1,528.6	\$166,067,873	-			-	\$166,067,873	\$167,888,991			-	-	\$167,888,991	\$1,821,118	-	-	\$1,821,118	1.1%	0.0%	0.0%	1.1%
Municipal	178.0	\$20,927,144	-			-	\$20,927,144	\$21,186,843	5.332	5.478	-	-	\$21,186,843	\$259,699	-	-	\$259,699	1.2%	0.0%	0.0%	1.2%
Unmetered ⁽²⁾	101.9	\$21,900,737	-			-	\$21,900,737	\$22,069,702	5.464	5.629	-	-	\$22,069,702	\$168,964	-	-	\$168,964	0.8%	0.0%	0.0%	0.8%
Total Other	279.9	\$42,827,881	-			-	\$42,827,881	\$43,256,545			-	-	\$43,256,545	\$428,664	-	-	\$428,664	1.0%	0.0%	0.0%	1.0%
Total FAM Classes	9,445.9	\$1,341,207,050	-			-	\$1,341,207,050	\$1,358,064,268			-	-	\$1,358,064,268	\$16,857,218	-	-	\$16,857,218	1.3%	0.0%	0.0%	1.3%
BTL GRLF 1P-RTP Shore Power LRT																					
Total BTL Classes	1,092.962	\$55,745,572	-			-	\$55,745,572	\$55,745,572	5.509	4.598	-	-	\$55,745,572	\$0	-	-	\$0	0%	0%	0%	0%
In Province Total	10,538.9	\$1,396,952,622	-			-	\$1,396,952,622	\$1,413,809,840			-	-	\$1,413,809,840	\$16,857,218	-	-	\$16,857,218	1.2%	0.0%	0.0%	1.2%
Export	50.0	\$2,616,861	-			-	\$2,616,861	\$2,616,861			-	-	\$2,616,861	\$0	-	-	\$0	0.0%	0.0%	0.0%	0.0%
Total Electric Sales	10,588.9	\$1,399,569,483	-			-	\$1,399,569,483	\$1,416,426,701	5.191	6.323	-	-	\$1,416,426,701	\$16,857,218	-	-	\$16,857,218	1.2%	0.0%	0.0%	1.2%

2019 REVENUE ANALYSIS																					
Rate Classes	2019 Sales (GWh's)	Revenues at 2018 rates					Revenues at 2019 rates					Revenue Variance				Revenue % Var					
		Base Cost Rates	FAM AA Riders	FAM AA	FAM BA Riders	FAM BA	Total	Base Cost Rates	2018 BCF	2019 BCF EEC	FAM AA	FAM BA	Total	Base Cost Rates	FAM AA	FAM BA	Total	Base Cost Rates	FAM AA	FAM BA	Total
FAM Classes																					
Residential	4,583.1	\$746,039,914	-			-	\$746,039,914	\$757,297,416	5.998	6.244	-	-	\$757,297,416	\$11,257,502	-	-	\$11,257,502	1.5%	0.0%	0.0%	1.5%
Small General	262.1	\$41,265,956	-			-	\$41,265,956	\$41,792,452	5.920	6.121	-	-	\$41,792,452	\$526,496	-	-	\$526,496	1.3%	0.0%	0.0%	1.3%
General Demand	2,404.7	\$316,312,302	-			-	\$316,312,302	\$318,604,810	5.629	5.724	-	-	\$318,604,810	\$2,292,508	-	-	\$2,292,508	0.7%	0.0%	0.0%	0.7%
Large General ⁽¹⁾	409.9	\$47,011,541	-			-	\$47,011,541	\$47,809,470	5.362	5.557	-	-	\$47,809,470	\$797,929	-	-	\$797,929	1.7%	0.0%	0.0%	1.7%
Total Commercial	3,076.6	\$404,589,799	-			-	\$404,589,799	\$408,206,732			-	-	\$408,206,732	\$3,616,934	-	-	\$3,616,934	0.9%	0.0%	0.0%	0.9%
Small Industrial	256.0	\$33,602,919	-			-	\$33,602,919	\$34,000,236	5.582	5.737	-	-	\$34,000,236	\$397,317	-	-	\$397,317	1.2%	0.0%	0.0%	1.2%
Medium Industrial ⁽¹⁾	481.6	\$55,744,223	-			-	\$55,744,223	\$56,427,953	5.241	5.383	-	-	\$56,427,953	\$683,730	-	-	\$683,730	1.2%	0.0%	0.0%	1.2%
Large Industrial ⁽¹⁾																					
Firm	125.3	\$13,168,357	-			-	\$13,168,357	\$13,271,067	5.097	5.179	-	-	\$13,271,067	\$102,710	-	-	\$102,710	0.8%	0.0%	0.0%	0.8%
Interruptible	666.9	\$65,555,492	-			-	\$65,555,492	\$66,215,753	5.110	5.209	-	-	\$66,215,753	\$660,261	-	-	\$660,261	1.0%	0.0%	0.0%	1.0%
Large Industrial Total	792.2	\$78,723,849	-			-	\$78,723,849	\$79,486,820	-		-	-	\$79,486,820	\$762,971	-	-	\$762,971	1.0%	0.0%	0.0%	1.0%
Total Industrial	1,529.8	\$168,070,991	-			-	\$168,070,991	\$169,915,009			-	-	\$169,915,009	\$1,844,018	-	-	\$1,844,018	1.1%	0.0%	0.0%	1.1%
Municipal	172.1	\$20,700,322	-			-	\$20,700,322	\$20,957,207	5.478	5.627	-	-	\$20,957,207	\$256,884	-	-	\$256,884	1.2%	0.0%	0.0%	1.2%
Unmetered ⁽²⁾	100.9	\$21,975,684	-			-	\$21,975,684	\$22,144,138	5.629	5.796	-	-	\$22,144,138	\$168,454	-	-	\$168,454	0.8%	0.0%	0.0%	0.8%
Total Other	273.0	\$42,676,006	-			-	\$42,676,006	\$43,101,345			-	-	\$43,101,345	\$425,339	-	-	\$425,339	1.0%	0.0%	0.0%	1.0%
Total FAM Classes	9,462.5	\$1,361,376,710	-			-	\$1,361,376,710	\$1,378,520,502			-	-	\$1,378,520,502	\$17,143,792	-	-	\$17,143,792	1.3%	0.0%	0.0%	1.3%
BTL GRLF 1P-RTP Shore Power LRT																					
Total BTL Classes	1,092.962	\$56,830,072	-			-	\$56,830,072	\$56,830,072	4.598	-	-	-	\$56,830,072	\$0	-	-	\$0	0%	0%	0%	0%
In Province Total	10,555.5	\$1,418,206,782	-			-	\$1,418,206,782	\$1,435,350,574			-	-	\$1,435,350,574	\$17,143,792	-	-	\$17,143,792	1.2%	0.0%	0.0%	1.2%
Export	47.0	\$2,758,318	-			-	\$2,758,318	\$2,758,318			-	-	\$2,758,318	\$0	-	-	\$0	0.0%	0.0%	0.0%	0.0%
Total Electric Sales	10,602.5	\$1,420,965,100	-			-	\$1,420,965,100	\$1,438,108,892	5.191	-	-	-	\$1,438,108,892	\$17,143,792	-	-	\$17,143,792	1.2%	0.0%	0.0%	1.2%

2020 REVENUE ANALYSIS																					
Rate Classes	2019 Sales (GWh's)	Revenues at 2019 rates					Revenues at 2020 rates					Revenue Variance				Revenue % Var					
		Base Cost Rates	FAM AA Riders	FAM AA	FAM BA Riders	FAM BA	Total	Base Cost Rates	2019 BCF	2020 BCF EEC	FAM AA	FAM BA	Total	Base Cost Rates	FAM AA	FAM BA	Total	Base Cost Rates	FAM AA	FAM BA	Total
FAM Classes																					
Residential	4,629.4	\$764,425,506	-			-	\$764,425,506	\$813,223,761	6.244	7.298	-	-	\$813,223,761	\$48,798,255	-	-	\$48,798,255	6.4%	0.0%	0.0%	6.4%
Small General	263.4	\$42,010,567	-			-	\$42,010,567	\$44,520,659	6.121	7.074	-	-	\$44,520,659	\$2,510,092	-	-	\$2,510,092	6.0%	0.0%	0.0%	6.0%
General Demand	2,408.3	\$319,082,957	-			-	\$319,082,957	\$344,165,756	5.724	6.766	-	-	\$344,165,756	\$25,082,799	-	-	\$25,082,799	7.9%	0.0%	0.0%	7.9%
Large General ⁽¹⁾	407.0	\$47,560,091	-			-	\$47,560,091	\$50,931,912	5.557	6.385	-	-	\$50,931,912	\$3,371,822	-	-	\$3,371,822	7.1%	0.0%	0.0%	7.1%
Total Commercial	3,078.7	\$408,653,615	-			-	\$408,653,615	\$439,618,328			-	-	\$439,618,328	\$30,964,713	-	-	\$30,964,713	7.6%	0.0%	0.0%	7.6%
Small Industrial	256.3	\$34,034,036	-			-	\$34,034,036	\$36,511,958	5.737	6.704	-	-	\$36,511,958	\$2,477,922	-	-	\$2,477,922	7.3%	0.0%	0.0%	7.3%
Medium Industrial ⁽¹⁾	482.3	\$56,506,587	-			-	\$56,506,587	\$60,856,827	5.383	6.285	-	-	\$60,856,827	\$4,350,240	-	-	\$4,350,240	7.7%	0.0%	0.0%	7.7%
Large Industrial ⁽¹⁾																					
Firm	124.2	\$13,187,036	-			-	\$13,187,036	\$14,314,164	5.179	6.086	-	-	\$14,314,164	\$1,127,127	-	-	\$1,127,127	8.5%	0.0%	0.0%	8.5%
Interruptible	663.8	\$65,972,801	-			-	\$65,972,801	\$71,794,221	5.209	6.086	-	-	\$71,794,221	\$5,821,420	-	-	\$5,821,420	8.8%	0.0%	0.0%	8.8%
Large Industrial Total	788.1	\$79,159,838	-			-	\$79,159,838	\$86,108,385	-		-	-	\$86,108,385	\$6,948,547	-	-	\$6,948,547	8.8%	0.0%	0.0%	8.8%
Total Industrial	1,526.6	\$169,700,460	-			-	\$169,700,460	\$183,477,170			-	-	\$183,477,170	\$13,776,710	-	-	\$13,776,710	8.1%	0.0%	0.0%	8.1%
Municipal	160.9	\$19,998,777	-			-	\$19,998,777	\$21,609,582	5.627	6.628	-	-	\$21,609,582	\$1,610,805	-	-	\$1,610,805	8.1%	0.0%	0.0%	8.1%
Unmetered ⁽²⁾	100.9	\$22,176,147	-			-	\$22,176,147	\$23,337,916	5.796	6.948	-	-	\$23,337,916	\$1,161,769	-	-	\$1,161,769	5.2%	0.0%	0.0%	5.2%
Total Other	261.7	\$42,174,923	-			-	\$42,174,923	\$44,947,498			-	-	\$44,947,498	\$2,772,575	-	-	\$2,772,575	6.6%	0.0%	0.0%	6.6%
Total FAM Classes	9,496.5	\$1,384,954,504	-			-	\$1,384,954,504	\$1,481,266,756			-	-	\$1,481,266,756	\$96,312,252	-	-	\$96,312,252	7.0%	0.0%	0.0%	7.0%
BTL																					
GRLF																					
1P-RTP																					
Shore Power																					
LRT																					
Total BTL Classes	1,093.022	\$55,589,552	-			-	\$55,589,552	\$55,589,552	-	4.584	-	-	\$55,589,552	\$0	-	-	\$0	0%	0%	0%	0%
In Province Total	10,589.5	\$1,440,544,056	-			-	\$1,440,544,056	\$1,536,856,308			-	-	\$1,536,856,308	\$96,312,252	-	-	\$96,312,252	6.7%	0.0%	0.0%	6.7%
Export	50.0	\$3,279,932	-			-	\$3,279,932	\$3,279,932			-	-	\$3,279,932	\$0	-	-	\$0	0.0%	0.0%	0.0%	0.0%
Total Electric Sales	10,639.5	\$1,443,823,988	-			-	\$1,443,823,988	\$1,540,136,240	5.191	6.661	-	-	\$1,540,136,240	\$96,312,252	-	-	\$96,312,252	6.7%	0.0%	0.0%	6.7%

WACC			7.78%																			
2016 Rates	2014 Rate Base		2016										2017									
			Sales (GWh)	BCF		Rate Stability Fund							Sales (GWh)	BCF		Rate Stability Fund						
	Amount	%		Requirement	Recovery at 2016 Rates	Year-beginning	Contribution from BCF Recovery	Deferred FAM	DSM RSA Adjustment	Additional Cash Taxes	Year-end bfr Interest	Interest		Requirement	Recovery at 2016 Rates	Year-beginning	Contribution from BCF Recovery	Deferred FAM	DSM RSA Adjustment	Additional Cash Taxes	Year-end bfr Interest	Interest
	Residential	\$1,945,386	54.3%	4,485.0	\$240,558,165	\$240,558,165	-\$22,796,706	-	-	-	-\$8,250,676	-\$31,047,382	-\$2,094,535	4,508.9	\$228,700,115	241,838,851.4	-\$33,141,917	-\$13,138,736	-	-	-\$3,613,506	-\$49,894,160
Small General	\$97,112	2.7%	247.6	\$13,683,753	\$13,683,753	-\$1,137,991	-	-	-	-\$411,866	-\$1,549,857	-\$104,557	262.7	\$13,588,817	14,515,176.8	-\$1,654,414	-\$926,360	-	-	-\$180,383	-\$2,761,157	-\$171,766
General Demand	\$863,366	24.1%	2,509.0	\$131,932,851	\$131,932,851	-\$10,117,223	-	-	-	-\$3,661,666	-\$13,778,890	-\$929,559	2,424.7	\$119,834,100	127,498,807.5	-\$14,708,449	-\$7,664,708	-	-	-\$1,603,681	-\$23,976,838	-\$1,504,858
Large General	\$110,492	3.1%	406.5	\$20,335,158	\$20,335,158	-\$1,294,783	-	-	-	-\$468,613	-\$1,763,397	-\$118,963	415.6	\$19,554,329	20,787,884.6	-\$1,882,360	-\$1,233,556	-	-	-\$205,236	-\$3,321,152	-\$202,417
Total Commercial	\$1,070,970	29.9%	3,163.2	\$165,951,761	\$165,951,761	-\$12,549,997	-	-	-	-\$4,542,146	-\$17,092,143	-\$1,153,079	3,102.9	\$152,977,246	\$162,801,869	-\$18,245,222	-\$9,824,623	-	-	-\$1,989,300	-\$30,059,146	-\$1,879,040
Small Industrial	\$86,528	2.4%	252.4	\$13,061,307	\$13,061,307	-\$1,013,961	-	-	-	-\$366,977	-\$1,380,938	-\$93,162	256.6	\$12,548,882	13,281,102.6	-\$1,474,100	-\$732,221	-	-	-\$160,723	-\$2,367,043	-\$149,420
Medium Industrial	\$152,898	4.3%	470.9	\$23,209,111	\$23,209,111	-\$1,791,718	-	-	-	-\$648,466	-\$2,440,183	-\$164,621	475.6	\$22,045,695	23,440,851.2	-\$2,604,804	-\$1,395,156	-	-	-\$284,005	-\$4,283,966	-\$267,973
Large Industrial Total		0.0%																				#DIV/0!
Firm	\$34,552.09	1.0%	94.9	\$4,560,898.00	\$4,560,898	-\$404,893	-	-	-	-\$146,541	-\$551,434	-\$37,201	127.3	\$5,751,294	\$6,120,818	-\$588,635	-\$369,524	-	-	-\$64,180	-\$1,022,339	-\$62,667
Interruptible	\$177,175.83	4.9%	596.6	\$28,677,383.97	\$28,677,384	-\$2,076,208	-	-	-	-\$751,430	-\$2,827,638	-\$190,760	652.9	\$29,491,425	\$31,386,264	-\$3,018,397	-\$1,894,839	-	-	-\$329,100	-\$5,242,336	-\$321,343
Large Industrial Total	\$211,728	5.9%	691.5	\$33,238,282	\$33,238,282	-\$2,481,102	-	-	-	-\$897,970	-\$3,379,072	-\$227,961	780.3	\$35,242,719	\$37,507,082	-\$3,607,033	-\$2,264,363	-	-	-\$393,279	-\$6,264,675	-\$384,009
Total Industrial	\$451,154	12.6%	1,414.8	\$69,508,700	\$69,508,700	-\$5,286,780	-	-	-	-\$1,913,413	-\$7,200,193	-\$485,743	1,512.5	\$69,837,296	\$74,229,036	-\$7,685,936	-\$4,391,740	-	-	-\$838,008	-\$12,915,684	-\$801,403
Municipal ⁽²⁾	\$60,971	1.7%	181.0	\$9,047,284	\$9,047,284	-\$714,484	-	-	-	-\$258,589	-\$973,073	-\$65,646	177.8	\$8,387,562	8,887,712.9	-\$1,038,719	-\$500,151	-	-	-\$113,253	-\$1,652,123	-\$104,674
Unmetered	\$53,801	1.5%	108.4	\$5,745,785	\$5,745,785	-\$630,454	-	-	-	-\$228,176	-\$858,630	-\$57,925	103.7	\$5,163,406	5,497,837.6	-\$916,556	-\$334,432	-	-	-\$99,933	-\$1,350,921	-\$88,205
Total Other	\$114,772	3.2%	289.4	\$14,793,069	\$14,793,069	-\$1,344,938	-	-	-	-\$486,765	-\$1,831,703	-\$123,571	281.5	\$13,550,968	\$14,385,550	-\$1,955,275	-\$834,583	-	-	-\$213,186	-\$3,003,043	-\$192,879
Total FAM Classes	\$3,582,281	100.0%	9,352.4	\$490,811,695	\$490,811,695	-\$41,978,422	-	-	-	-\$15,193,000	-\$57,171,422	-\$3,856,929	9,405.9	\$465,065,625	\$493,255,307	-\$61,028,351	-\$28,189,682	-	-	-\$6,654,000	-\$95,872,033	-\$6,103,425
Rate Plan	2014 Rate Base		2016										2017									
			Sales (GWh)	BCF		Rate Stability Fund							Sales (GWh)	BCF		Rate Stability Fund						
	Amount	%		Requirement	Recovery at 2016 Rates	Year-beginning	Contribution from BCF Recovery	Deferred FAM	DSM RSA Adjustment	Additional Cash Taxes	Year-end bfr Interest	Interest		Requirement	Recovery at 2017 Rates	Year-beginning	Contribution from BCF Recovery	Deferred FAM	DSM RSA Adjustment	Additional Cash Taxes	Year-end bfr Interest	Interest
	Residential	\$1,945,386	54.3%	4,485.0	\$240,558,165	\$240,558,165	-\$22,796,706	-	-	-	-\$8,250,676	-\$31,047,382	-\$2,094,535	4,508.9	\$228,700,115	259,544,959.79	-\$33,141,917	-\$30,844,845	-	-	-\$3,613,506	-\$67,600,268
Small General	\$97,112	2.7%	247.6	\$13,683,753	\$13,683,753	-\$1,137,991	-	-	-	-\$411,866	-\$1,549,857	-\$104,557	262.7	\$13,588,817	15,028,889.1	-\$1,654,414	-\$1,440,072	-	-	-\$180,383	-\$3,274,869	-\$191,749
General Demand	\$863,366	24.1%	2,509.0	\$131,932,851	\$131,932,851	-\$10,117,223	-	-	-	-\$3,661,666	-\$13,778,890	-\$929,559	2,424.7	\$119,834,100	134,190,246.4	-\$14,708,449	-\$14,356,147	-	-	-\$1,603,681	-\$30,668,277	-\$1,765,155
Large General	\$110,492	3.1%	406.5	\$20,335,158	\$20,335,158	-\$1,294,783	-	-	-	-\$468,613	-\$1,763,397	-\$118,963	415.6	\$19,554,329	21,488,464.2	-\$1,882,360	-\$1,934,135	-	-	-\$205,236	-\$4,021,731	-\$229,669
Total Commercial	\$1,070,970	29.9%	3,163.2	\$165,951,761	\$165,951,761	-\$12,549,997	-	-	-	-\$4,542,146	-\$17,092,143	-\$1,153,079	3,102.9	\$152,977,246	\$170,707,600	-\$18,245,222	-\$17,730,354	-	-	-\$1,989,300	-\$37,964,877	-\$2,186,573
Small Industrial	\$86,528	2.4%	252.4	\$13,061,307	\$13,061,307	-\$1,013,961	-	-	-	-\$366,977	-\$1,380,938	-\$93,162	256.6	\$12,548,882	13,931,862.8	-\$1,474,100	-\$1,382,981	-	-	-\$160,723	-\$3,017,804	-\$174,735
Medium Industrial	\$152,898	4.3%	470.9	\$23,209,111	\$23,209,111	-\$1,791,718	-	-	-	-\$648,466	-\$2,440,183	-\$164,621	475.6	\$22,045,695	24,261,538.8	-\$2,604,804	-\$2,215,844	-	-	-\$284,005	-\$5,104,653	-\$299,898
Large Industrial Total																						#DIV/0!
Firm	\$34,552.09	1.0%	94.9	\$4,560,898.00	\$4,560,898	-\$404,893	-	-	-	-\$146,541	-\$551,434	-\$37,201	127.3	\$5,751,294	\$6,386,209	-\$588,635	-\$634,915	-	-	-\$64,180	-\$1,287,730	-\$72,991
Interruptible	\$177,175.83	4.9%	596.6	\$28,677,383.97	\$28,677,384	-\$2,076,208	-	-	-	-\$751,430	-\$2,827,638	-\$190,760	652.9	\$29,491,425	\$32,723,794	-\$3,018,397	-\$3,232,369	-	-	-\$329,100	-\$6,579,866	-\$373,372
Large Industrial Total	\$211,728	5.9%	691.5	\$33,238,282	\$33,238,282	-\$2,481,102	-	-	-	-\$897,970	-\$3,379,072	-\$227,961	780.3	\$35,242,719	\$39,110,003	-\$3,607,033	-\$3,867,284	-	-	-\$393,279	-\$7,867,596	-\$446,363
Total Industrial	\$451,154	12.6%	1,414.8	\$69,508,700	\$69,508,700	-\$5,286,780	-	-	-	-\$1,913,413	-\$7,200,193	-\$485,743	1,512.5	\$69,837,296	\$77,303,405	-\$7,685,936	-\$7,466,109	-	-	-\$838,008	-\$15,990,053	-\$920,996
Municipal ⁽²⁾	\$60,971	1.7%	181.0	\$9,047,284	\$9,047,284	-\$714,484	-	-	-	-\$258,589	-\$973,073	-\$65,646	177.8	\$8,387,562	9,480,132.6	-\$1,038,719	-\$1,092,570	-	-	-\$113,253	-\$2,244,542	-\$127,719
Unmetered	\$53,801	1.5%	108.4	\$5,745,785	\$5,745,785	-\$630,454	-	-	-	-\$228,176	-\$858,630	-\$57,925	103.7	\$5,163,406	5,666,808.7	-\$916,556	-\$503,403	-	-	-\$99,933	-\$1,519,892	-\$94,778
Total Other	\$114,772	3.2%	289.4	\$14,793,069	\$14,793,069	-\$1,344,938	-	-	-	-\$486,765	-\$1,831,703	-\$123,571	281.5	\$13,550,968	\$15,146,941	-\$1,955,275	-\$1,595,973	-	-	-\$213,186	-\$3,764,434	-\$222,497
Total FAM Classes	\$3,582,281	100.0%	9,352.4	\$490,811,695	\$490,811,695	-\$41,978,422	-	-	-	-\$15,193,000	-\$57,171,422	-\$3,856,929	9,405.9	\$465,065,625	\$522,702,906	-\$61,028,351	-\$57,637,281	-	-	-\$6,654,000	-\$125,319,632	-\$7,248,937

2016 Rates		2018										2019									
		Sales (GWh)		BCF		Rate Stability Fund						Sales (GWh)		BCF		Rate Stability Fund					
		Requirement	Recovery at 2016 Rates	Year-beginning	Contribution from BCF Recovery	Deferred FAM	DSM RSA Adjustment	Additional Cash Taxes	Year-end bfr Interest	Interest	Requirement	Recovery at 2016 Rates	Year-beginning	Contribution from BCF Recovery	Deferred FAM	DSM RSA Adjustment	Additional Cash Taxes	Year-end bfr Interest	Interest		
Residential	4,549.4	\$315,943,371	244,008,479.3	-\$53,124,263	\$71,934,892	-	-	-\$1,288,067	\$17,522,562	-\$1,384,906	4,583.1	\$321,240,057	245,816,195.4	\$16,137,656	\$75,423,862	-	-	-\$119,442	\$91,442,076	\$4,184,852	
Small General	262.3	\$17,604,720	14,493,754.5	-\$2,932,922	\$3,110,965	-	-	-\$64,299	\$113,744	-\$109,666	262.1	\$17,753,529	14,483,253.2	\$4,078	\$3,270,276	-	-	-\$5,962	\$3,268,391	\$127,299	
General Demand	2,413.1	\$153,829,665	126,887,061.4	-\$25,481,695	\$26,942,603	-	-	-\$571,647	\$889,262	-\$956,646	2,404.7	\$155,184,722	126,444,935.7	-\$67,384	\$28,739,786	-	-	-\$53,009	\$28,619,393	\$1,110,673	
Large General	412.7	\$24,673,184	20,645,600.6	-\$3,523,568	\$4,027,584	-	-	-\$73,158	\$430,857	-\$120,306	409.9	\$24,873,915	20,503,316.6	\$310,551	\$4,370,598	-	-	-\$6,784	\$4,674,365	\$193,913	
Total Commercial	3,088.1	\$196,107,569	\$162,026,417	-\$31,938,186	\$34,081,152	-	-	-\$709,104	\$1,433,863	-\$1,186,618	3,076.6	\$197,812,165	\$161,431,506	\$247,244	\$36,380,660	-	-	-\$65,755	\$36,562,149	\$1,431,885	
Small Industrial	256.2	\$16,132,494	13,257,460.2	-\$2,516,464	\$2,875,034	-	-	-\$57,291	\$301,279	-\$86,171	256.0	\$16,350,955	13,250,016.6	\$215,108	\$3,100,939	-	-	-\$5,313	\$3,310,734	\$137,155	
Medium Industrial	479.1	\$28,181,928	23,611,429.1	-\$4,551,939	\$4,570,499	-	-	-\$101,236	-\$82,676	-\$180,287	481.6	\$28,776,404	23,735,513.2	-\$262,962	\$5,040,891	-	-	-\$9,388	\$4,768,541	\$175,267	
Large Industrial Total																				#DIV/0!	
Firm	126.3	\$7,178,323	6,071,338.2	-\$1,085,005	\$1,106,985	-	-	-\$22,877	-\$898	-\$42,242	125.3	\$7,236,831	6,021,858.3	-\$43,140	\$1,214,973	-	-	-\$2,121	\$1,169,711	\$43,824	
Interruptible	667.0	\$37,910,885	32,064,566.2	-\$5,563,679	\$5,846,319	-	-	-\$117,311	\$165,329	-\$209,996	666.9	\$38,528,725	32,060,238.3	-\$44,666	\$6,468,487	-	-	-\$10,878	\$6,412,942	\$247,726	
Large Industrial Total	793.3	\$45,089,208	\$38,135,904	-\$6,648,684	\$6,953,303	-	-	-\$140,188	\$164,431	-\$252,237	792.2	\$45,765,556	\$38,082,097	-\$87,806	\$7,683,460	-	-	-\$13,000	\$7,582,654	\$291,550	
Total Industrial	1,528.6	\$89,403,630	\$75,004,794	-\$13,717,087	\$14,398,836	-	-	-\$298,715	\$383,034	-\$518,695	1,529.8	\$90,892,916	\$75,067,626	-\$135,661	\$15,825,290	-	-	-\$27,700	\$15,661,929	\$603,972	
Municipal ⁽²⁾	178.0	\$11,134,818	8,895,353.5	-\$1,756,796	\$2,239,465	-	-	-\$40,370	\$442,299	-\$51,134	172.1	\$10,890,680	8,604,011.4	\$391,165	\$2,286,668	-	-	-\$3,743	\$2,674,089	\$119,238	
Unmetered	101.9	\$6,660,842	5,403,485.2	-\$1,439,125	\$1,257,356	-	-	-\$35,622	-\$217,391	-\$64,438	100.9	\$6,699,251	5,346,237.6	-\$281,830	\$1,353,013	-	-	-\$3,303	\$1,067,881	\$30,577	
Total Other	279.9	\$17,795,660	\$14,298,839	-\$3,195,922	\$3,496,821	-	-	-\$75,992	\$224,907	-\$115,572	273.0	\$17,589,931	\$13,950,249	\$109,335	\$3,639,682	-	-	-\$7,047	\$3,741,970	\$149,816	
Total FAM Classes	9,445.9	\$619,250,230	\$495,338,528	-\$101,975,458	\$123,911,702	-	-	-\$2,371,878	\$19,564,366	-\$3,205,791	9,462.5	\$627,535,070	\$496,265,576	\$16,358,575	\$131,269,493	-	-	-\$219,943	\$147,408,124	\$6,370,525	
Rate Plan	2018										2019										
	Sales (GWh)		BCF		Rate Stability Fund						Sales (GWh)		BCF		Rate Stability Fund						
	Requirement	Recovery at 2018 Rates	Year-beginning	Contribution from BCF Recovery	Deferred FAM	DSM RSA Adjustment	Additional Cash Taxes	Year-end bfr Interest	Interest	Requirement	Recovery at 2019 Rates	Year-beginning	Contribution from BCF Recovery	Deferred FAM	DSM RSA Adjustment	Additional Cash Taxes	Year-end bfr Interest	Interest			
Residential	4,549.4	\$315,943,371	272,888,313.26	-\$71,519,139	\$43,055,058	-	-	-\$1,288,067	-\$29,752,148	-\$3,939,453	4,583.1	\$321,240,057	286,167,484.74	-\$33,691,601	\$35,072,573	-	-	-\$119,442	\$1,261,530	-\$1,261,530	
Small General	262.3	\$17,604,720	15,526,596.9	-\$3,466,618	\$2,078,123	-	-	-\$64,299	-\$1,452,794	-\$191,365	262.1	\$17,753,529	16,041,843.8	-\$1,644,160	\$1,711,685	-	-	-\$5,962	\$61,563	-\$61,563	
General Demand	2,413.1	\$153,829,665	135,830,364.7	-\$32,433,431	\$17,999,300	-	-	-\$571,647	-\$15,005,778	-\$1,845,385	2,404.7	\$155,184,722	137,649,584.7	-\$16,851,163	\$17,535,137	-	-	-\$53,009	\$630,966	-\$630,966	
Large General	412.7	\$24,673,184	22,130,086.2	-\$4,251,400	\$2,543,098	-	-	-\$73,158	-\$1,781,460	-\$234,678	409.9	\$24,873,915	22,775,500.9	-\$2,016,139	\$2,098,414	-	-	-\$6,784	\$75,491	-\$75,491	
Total Commercial	3,088.1	\$196,107,569	\$173,487,048	-\$40,151,449	\$22,620,521	-	-	-\$709,104	-\$18,240,032	-\$2,271,429	3,076.6	\$197,812,165	\$176,466,929	-\$20,511,461	\$21,345,236	-	-	-\$65,755	\$768,020	-\$768,020	
Small Industrial	256.2	\$16,132,494	14,299,956.9	-\$3,192,539	\$1,832,537	-	-	-\$57,291	-\$1,417,292	-\$179,322	256.0	\$16,350,955	14,689,245.2	-\$1,596,615	\$1,661,710	-	-	-\$5,313	\$59,783	-\$59,783	
Medium Industrial	479.1	\$28,181,928	25,110,002.7	-\$5,404,551	\$3,071,926	-	-	-\$101,236	-\$2,433,862	-\$304,914	481.6	\$28,776,404	25,925,691.7	-\$2,738,776	\$2,850,713	-	-	-\$9,388	\$102,549	-\$102,549	
Large Industrial Total																				#DIV/0!	
Firm	126.3	\$7,178,323	6,437,145.8	-\$1,360,720	\$741,177	-	-	-\$22,877	-\$642,421	-\$77,922	125.3	\$7,236,831	6,487,394.4	-\$720,343	\$749,437	-	-	-\$2,121	\$26,972	-\$26,972	
Interruptible	667.0	\$37,910,885	34,084,749.1	-\$6,953,239	\$3,826,136	-	-	-\$117,311	-\$3,244,413	-\$396,689	666.9	\$38,528,725	34,740,409.8	-\$3,641,102	\$3,788,316	-	-	-\$10,878	\$136,335	-\$136,335	
Large Industrial Total	793.3	\$45,089,208	\$40,521,895	-\$8,313,959	\$4,567,313	-	-	-\$140,188	-\$3,886,834	-\$474,611	792.2	\$45,765,556	\$41,227,804	-\$4,361,445	\$4,537,752	-	-	-\$13,000	\$163,308	-\$163,308	
Total Industrial	1,528.6	\$89,403,630	\$79,931,854	-\$16,911,049	\$9,471,776	-	-	-\$298,715	-\$7,737,988	-\$958,848	1,529.8	\$90,892,916	\$81,842,741	-\$8,696,836	\$9,050,175	-	-	-\$27,700	\$325,640	-\$325,640	
Municipal ⁽²⁾	178.0	\$11,134,818	9,747,981.7	-\$2,372,261	\$1,386,837	-	-	-\$40,370	-\$1,025,794	-\$132,184	172.1	\$10,890,680	9,685,598.5	-\$1,157,979	\$1,205,081	-	-	-\$3,743	\$43,359	-\$43,359	
Unmetered	101.9	\$6,660,842	5,738,520.9	-\$1,614,670	\$922,321	-	-	-\$35,622	-\$727,971	-\$91,129	100.9	\$6,699,251	5,846,178.1	-\$819,100	\$853,073	-	-	-\$3,303	\$30,670	-\$30,670	
Total Other	279.9	\$17,795,660	\$15,486,503	-\$3,986,931	\$2,309,157	-	-	-\$75,992	-\$1,753,766	-\$223,313	273.0	\$17,589,931	\$15,531,777	-\$1,977,079	\$2,058,154	-	-	-\$7,047	\$74,029	-\$74,029	
Total FAM Classes	9,445.9	\$619,250,230	\$541,793,718	-\$132,568,568	\$77,456,512	-	-	-\$2,371,878	-\$57,483,934	-\$7,393,042	9,462.5	\$627,535,070	\$560,008,932	-\$64,876,976	\$67,526,138	-	-	-\$219,943	\$2,429,218	-\$2,429,218	

WACC

2016 Rates	2020											
	Sales (GWh)	BCF		Rate Stability Fund						Year Beginning 2021		
		Requirement	Recovery at 2016 Rates	Year-beginning	Contribution from BCF Recovery	Deferred FAM	DSM RSA Adjustment	Additional Cash Taxes	Year-end bfr Interest		Interest	
	Residential	4,629.4	\$337,857,647	248,300,327.05	\$95,626,928	\$89,557,320	-	-	\$0	\$185,184,248	\$10,923,555	\$196,107,802
	Small General	263.4	\$18,633,210	14,556,630.4	\$3,395,690	\$4,076,579	-	-	\$0	\$7,472,269	\$422,764	\$7,895,032
	General Demand	2,408.3	\$162,938,962	126,634,698.3	\$29,730,067	\$36,304,264	-	-	\$0	\$66,034,330	\$3,725,235	\$69,759,565
	Large General	407.0	\$25,990,002	20,361,691.2	\$4,868,278	\$5,628,311	-	-	\$0	\$10,496,589	\$597,693	\$11,094,283
	Total Commercial	3,078.7	\$207,562,174	\$161,553,020	\$37,994,035	\$46,009,154	-	-	\$0	\$84,003,188	\$4,745,692	\$88,748,880
	Small Industrial	256.3	\$17,181,770	13,263,188.4	\$3,447,890	\$3,918,582	-	-	\$0	\$7,366,471	\$420,679	\$7,787,150
	Medium Industrial	482.3	\$30,312,060	23,768,589.5	\$4,943,808	\$6,543,471	-	-	\$0	\$11,487,279	\$639,169	\$12,126,448
Large Industrial Total Firm	124.2	\$7,561,463	5,972,607.5	\$1,213,535	\$1,588,856	-	-	\$0	\$2,802,391	\$156,220	\$2,958,610	
Interruptible	663.8	\$40,400,286	31,911,157.4	\$6,660,668	\$8,489,129	-	-	\$0	\$15,149,797	\$848,427	\$15,998,224	
Large Industrial Total	788.1	\$47,961,749	\$37,883,765	\$7,874,203	\$10,077,984	-	-	\$0	\$17,952,188	\$1,004,647	\$18,956,834	
Total Industrial	1,526.6	\$95,455,580	\$74,915,543	\$16,265,901	\$20,540,037	-	-	\$0	\$36,805,938	\$2,064,495	\$38,870,433	
Municipal ⁽²⁾	160.9	\$10,661,670	8,040,157.7	\$2,793,328	\$2,621,512	-	-	\$0	\$5,414,840	\$319,298	\$5,734,137	
Unmetered	100.9	\$7,009,686	5,347,827.6	\$1,098,458	\$1,661,858	-	-	\$0	\$2,760,316	\$150,106	\$2,910,423	
Total Other	261.7	\$17,671,356	\$13,387,985	\$3,891,786	\$4,283,370	-	-	\$0	\$8,175,156	\$469,404	\$8,644,560	
Total FAM Classes	9,496.5	\$658,546,756	\$498,156,875	\$153,778,649	\$160,389,881	\$0	\$0	\$0	\$314,168,530	\$18,203,145	\$332,371,675	
Rate Plan	2020											
	Sales (GWh)	BCF		Rate Stability Fund						Year Beginning 2021		
		Requirement	Recovery at 2020 Rates	Year-beginning	Contribution from BCF Recovery	Deferred FAM	DSM RSA Adjustment	Additional Cash Taxes	Year-end bfr Interest		Interest	
	Residential	4,629.4	\$337,857,647	337,857,647	\$0	\$0	-	-	\$0	\$0	\$0	\$0
	Small General	263.4	\$18,633,210	18,633,210	-\$0	\$0	-	-	\$0	-\$0	-\$0	-\$0
	General Demand	2,408.3	\$162,938,962	162,938,962	-\$0	\$0	-	-	\$0	-\$0	-\$0	-\$0
	Large General	407.0	\$25,990,002	25,990,002	-\$0	\$0	-	-	\$0	-\$0	-\$0	-\$0
	Total Commercial	3,078.7	\$207,562,174	207,562,174	-\$0	\$0	-	-	\$0	-\$0	-\$0	-\$0
	Small Industrial	256.3	\$17,181,770	17,181,770	\$0	\$0	-	-	\$0	\$0	\$0	\$0
	Medium Industrial	482.3	\$30,312,060	30,312,060	-\$0	\$0	-	-	\$0	-\$0	-\$0	-\$0
Large Industrial Total Firm	124.2	\$7,561,463	7,561,463	-\$0	\$0	-	-	\$0	-\$0	-\$0	-\$0	
Interruptible	663.8	\$40,400,286	40,400,286	-\$0	\$0	-	-	\$0	-\$0	-\$0	-\$0	
Large Industrial Total	788.1	\$47,961,749	47,961,749	-\$0	\$0	-	-	\$0	-\$0	-\$0	-\$0	
Total Industrial	1,526.6	\$95,455,580	\$95,455,580	-\$0	\$0	-	-	\$0	-\$0	-\$0	-\$0	
Municipal ⁽²⁾	160.9	\$10,661,670	10,661,669.7	-\$0	\$0	-	-	\$0	-\$0	-\$0	-\$0	
Unmetered	100.9	\$7,009,686	7,009,685.9	\$0	\$0	-	-	\$0	\$0	\$0	\$0	
Total Other	261.7	\$17,671,356	\$17,671,356	-\$0	\$0	-	-	\$0	-\$0	-\$0	-\$0	
Total FAM Classes	9,496.5	\$658,546,756	\$658,546,756	-\$0	\$0	\$0	\$0	\$0	-\$0	-\$0	-\$0	

WACC		7.78%		
Outstanding balance with interest by year-end				Target Uniform %Increase
	2019	2020		
Residential	\$0	\$0		1.51%
Small General	-\$0	-\$0		1.28%
General Demand	-\$0	-\$0		0.72%
Large General	-\$0	-\$0		1.70%
Total Commercial	-\$0	-\$0		0.89%
Small Industrial	\$0	\$0		1.18%
Medium Industrial	-\$0	-\$0		1.23%
Large Industrial Total				
Firm	-\$0	-\$0		0.78%
Interruptible	-\$0	-\$0		1.01%
Large Industrial Total	-\$0	-\$0		0.97%
Total Industrial	-\$0	-\$0		1.10%
Municipal ⁽²⁾	-\$0	-\$0		1.24%
Unmetered	\$0	\$0		0.77%
Total Other	-\$0	-\$0		1.00%
Total FAM Classes	-\$0	-\$0		1.25%

NPV Differential between Status Quo and Rate Plan	
3 Year Plan	4 Year Plan
2019	2020
\$73,517,701	\$0
\$2,610,596	\$0
\$22,856,388	\$0
\$3,742,718	\$0
\$29,209,702	\$0
\$2,650,727	\$0
\$3,800,785	\$0
\$0	\$0
\$932,962	\$0
\$6,120,702	\$0
\$6,053,664	\$0
\$12,505,177	\$0
\$2,147,502	\$0
\$844,491	\$0
\$2,991,993	\$0
\$118,224,574	\$0

NPV Imbalance	
3 Year Plan	4 Year Plan
2019	2020
\$73,517,701	-\$0
\$2,610,596	\$0
\$22,856,388	\$0
\$3,742,718	\$0
\$29,209,702	\$0
\$2,650,727	-\$0
\$3,800,785	\$0
\$0	\$0
\$932,962	\$0
\$6,120,702	\$0
\$6,053,664	\$0
\$12,505,177	\$0
\$2,147,502	\$0
\$844,491	-\$0
\$2,991,993	\$0
\$118,224,574	\$0

Factor	2016 Rates														
	GWh Sales					Revenues priced at 2016 base cost rates					Unit Revenues (c/kWhs)				
	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Residential	4,485.0	4,508.9	4,549.4	4,583.1	4,629.4	\$700,817,754	\$706,283,379	\$712,096,132	\$716,946,127	\$723,666,441	15.6	15.7	15.7	15.6	15.6
Small General	247.6	262.7	262.3	262.1	263.4	\$38,108,102	\$40,263,949	\$40,235,065	\$40,233,862	\$40,444,080	15.4	15.3	15.3	15.4	15.4
General Demand	2,509.0	2,424.7	2,413.1	2,404.7	2,408.3	\$309,962,227	\$308,475,012	\$308,475,012	\$307,400,161	\$307,861,493	12.8	12.8	12.8	12.8	12.8
Large General	406.5	415.6	412.7	409.9	407.9	\$45,216,807	\$46,006,868	\$45,772,058	\$45,837,286	\$45,303,801	11.1	11.1	11.1	11.1	11.1
Total Commercial	3,163.2	3,102.9	3,085.1	3,076.6	3,078.7	\$404,080,431	\$396,233,006	\$394,482,135	\$393,171,309	\$393,609,174	12.8	12.8	12.8	12.8	12.8
Small Industrial	252.4	256.6	256.2	256.0	256.3	\$32,099,992	\$32,637,400	\$32,579,300	\$32,561,008	\$32,593,376	12.7	12.7	12.7	12.7	12.7
Medium Industrial	470.9	475.6	479.1	481.6	482.3	\$52,466,144	\$53,564,445	\$53,954,231	\$54,237,774	\$54,313,357	11.1	11.3	11.3	11.3	11.3
Large Industrial Total															
Firm	94.9	127.3	126.3	125.3	124.2	\$10,182,027	\$12,966,722	\$12,886,126	\$12,805,530	\$12,725,308	10.7	10.2	10.2	10.2	10.2
Interruptible	586.6	652.9	667.0	666.9	663.8	\$55,620,561	\$62,081,322	\$63,542,473	\$63,535,582	\$63,305,093	9.3	9.5	9.5	9.5	9.5
Large Industrial Total	691.5	780.3	793.3	792.2	788.1	\$65,802,588	\$75,048,045	\$76,428,399	\$76,341,112	\$76,030,400	9.5	9.6	9.6	9.6	9.6
Total Industrial	1,414.8	1,512.5	1,528.6	1,529.8	1,526.6	\$150,368,724	\$161,249,889	\$162,961,930	\$163,139,894	\$162,937,133	10.6	10.7	10.7	10.7	10.7
Municipal ⁽²⁾	181.0	177.8	178.0	172.1	160.9	\$20,149,547	\$20,322,188	\$20,334,215	\$19,875,620	\$18,988,070	11.1	11.4	11.4	11.5	11.8
Unmetered	108.4	103.7	101.9	100.9	100.9	\$23,289,077	\$21,932,109	\$21,901,651	\$21,669,613	\$21,676,058	21.5	21.1	21.5	21.5	21.5
Total Other	289.4	281.5	279.9	273.0	261.7	\$43,438,624	\$42,254,297	\$42,235,866	\$41,545,232	\$40,664,128	15.0	15.0	15.1	15.2	15.5
Total FAM Classes	9,352.4	9,405.9	9,445.9	9,462.5	9,496.5	\$1,298,705,534	\$1,306,020,572	\$1,311,776,063	\$1,314,802,562	\$1,320,876,875	13.9	13.9	13.9	13.9	13.9

NPV of Revenue Requirement 3Y
\$1,840,930,711
\$104,128,500
\$798,657,768
\$118,224,574
\$1,021,245,443
\$84,333,725
\$139,463,921
\$0
\$33,351,474
\$163,045,998
\$196,397,472
\$420,195,118
\$52,234,526
\$56,510,420
\$108,744,946
\$3,391,116,218

Revenue Variance				% Var GWh Sales				% Var Revenues				% Var Unit Revenues (c/kWhs)				BCF Rates (c/kWh)				% Var BCF Rates (c/kWh)			
2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
\$5,465,625	\$5,812,752	\$4,849,995	\$6,720,314	0.5%	0.9%	0.7%	1.0%	0.8%	0.8%	0.7%	0.9%	0.2%	-0.1%	-0.1%	-0.1%	5.364	5.364	5.364	5.364	0.0%	0.0%	0.0%	0.0%
\$2,155,847	-\$28,884	-\$1,204	\$210,219	6.1%	-0.1%	-0.1%	0.5%	5.7%	-0.1%	0.0%	0.5%	-0.4%	0.1%	0.1%	0.0%	5.526	5.526	5.526	5.526	0.0%	0.0%	0.0%	0.0%
-\$10,793,295	-\$1,487,215	-\$1,074,851	\$461,332	-3.4%	-0.5%	-0.3%	0.2%	-3.4%	-0.5%	-0.3%	0.2%	0.0%	0.0%	0.0%	0.0%	5.258	5.258	5.258	5.258	0.0%	0.0%	0.0%	0.0%
\$780,063	-\$234,772	\$244,722	-\$233,085	2.2%	-0.7%	-0.7%	-0.7%	1.7%	-0.5%	-0.5%	-0.5%	-0.5%	0.2%	0.2%	0.2%	5.002	5.002	5.002	5.002	0.0%	0.0%	0.0%	0.0%
-\$7,847,425	-\$1,750,671	-\$1,310,607	\$437,865	-1.9%	-0.5%	-0.4%	0.1%	-1.9%	-0.4%	-0.3%	0.1%	0.0%	0.0%	0.0%	0.0%								
\$537,407	-\$58,100	-\$18,292	\$32,369	1.7%	-0.2%	-0.1%	0.1%	1.7%	-0.2%	-0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	5.175	5.175	5.175	5.175	0.0%	0.0%	0.0%	0.0%
\$1,098,301	\$389,786	\$283,543	\$75,582	1.0%	0.7%	0.5%	0.1%	2.1%	0.7%	0.5%	0.1%	1.1%	0.0%	0.0%	0.0%	4.928	4.928	4.928	4.928	0.0%	0.0%	0.0%	0.0%
\$0	\$0	\$0	\$0																				
\$2,784,696	-\$80,596	-\$80,596	-\$80,223	34.2%	-0.8%	-0.8%	-0.8%	27.3%	-0.6%	-0.6%	-0.6%	-5.1%	0.2%	0.2%	0.2%	4.807	4.807	4.807	4.807	0.0%	0.0%	0.0%	0.0%
\$6,460,761	\$1,480,951	-\$6,691	-\$220,489	9.4%	2.2%	0.0%	-0.5%	11.6%	2.4%	0.0%	-0.4%	2.0%	0.2%	0.0%	0.1%	4.807	4.807	4.807	4.807	0.0%	0.0%	0.0%	0.0%
\$9,245,457	\$1,380,355	-\$87,287	-\$310,712	12.8%	1.7%	-0.1%	-0.5%	14.1%	1.8%	-0.1%	-0.4%	1.1%	0.2%	0.0%	0.1%								
\$10,881,165	\$1,712,041	\$177,964	-\$202,761	6.9%	1.1%	0.1%	-0.2%	7.2%	1.1%	0.1%	-0.1%	0.3%	0.0%	0.0%	0.1%								
\$172,641	\$12,027	-\$458,595	-\$897,550	-1.8%	0.1%	-3.3%	-6.6%	0.9%	0.1%	-2.3%	-4.5%	2.7%	0.0%	1.1%	2.2%	4.998	4.998	4.998	4.998	0.0%	0.0%	0.0%	0.0%
-\$1,356,968	-\$30,458	-\$232,038	\$6,445	-4.3%	-1.7%	-1.1%	0.0%	-5.8%	-0.1%	-1.1%	0.0%	-1.6%	1.6%	0.0%	0.0%	5.301	5.301	5.301	5.301	0.0%	0.0%	0.0%	0.0%
-\$1,184,327	-\$18,431	-\$690,634	-\$891,105	-2.7%	-0.6%	-2.5%	-4.1%	-2.7%	0.0%	-1.6%	-2.1%	0.0%	0.5%	0.9%	2.1%								
\$7,315,038	\$5,755,492	\$3,026,498	\$6,074,314	0.6%	0.4%	0.2%	0.4%	0.6%	0.4%	0.2%	0.5%	0.0%	0.0%	0.1%	0.1%								

Rate Plan	Proposed Revenues under Smoothed Rate Increases															NPV of Revenue Requirement 3Y
				Revenues priced at previous year's rates			Variance			% Variance						
	2017	2018	2019	2017	2018	2019	2017	2018	2019	2017	2018	2019				
Residential	\$723,989,488	\$740,975,966	\$757,297,416	\$713,227,121	\$729,961,088	\$746,039,914	\$10,762,367	\$11,014,877	\$11,257,502	1.5%	1.5%	1.5%	\$1,914,448,412			
Small General	\$40,777,661	\$41,267,908	\$41,792,452	\$40,263,949	\$40,748,019	\$41,265,956	\$513,712	\$519,888	\$526,496	1.3%	1.3%	1.3%	\$106,739,096			
General Demand	\$316,653,666	\$317,418,315	\$318,604,810	\$314,375,198	\$315,134,345	\$316,312,302	\$2,278,468	\$2,283,970	\$2,292,508	0.7%	0.7%	0.7%	\$827,514,156			
Large General	\$46,707,409	\$47,256,543	\$47,809,470	\$45,927,873	\$46,467,842	\$47,011,541	\$779,536	\$788,701	\$797,929	1.7%	1.7%	1.7%	\$122,201,893			
Total Commercial	\$404,138,737	\$405,942,767	\$408,206,732	\$400,567,020	\$402,350,207	\$404,589,799	\$3,571,717	\$3,592,560	\$3,616,934	0.9%	0.9%	0.9%	\$1,050,455,145			
Small Industrial	\$33,288,160	\$33,621,797	\$34,000,236	\$32,899,163	\$33,228,902	\$33,602,919	\$388,996	\$392,895	\$397,317	1.2%	1.2%	1.2%	\$88,984,452			
Medium Industrial	\$54,385,133	\$55,452,804	\$56,427,953	\$53,726,156	\$54,780,891	\$55,744,223	\$658,977	\$671,914	\$683,730	1.2%	1.2%	1.2%	\$134,264,707			
Large Industrial Total																
Firm	\$13,232,114	\$13,251,934	\$13,271,067	\$13,129,705	\$13,149,372	\$13,168,357	\$102,408	\$102,562	\$102,710	0.8%	0.8%	0.8%	\$34,284,436			
Interruptible	\$63,418,852	\$65,562,456	\$66,215,753	\$62,786,480	\$64,908,709	\$66,555,492	\$632,372	\$653,747	\$660,261	1.0%	1.0%	1.0%	\$168,166,700			
Large Industrial Total	\$76,650,966	\$78,814,390	\$79,486,820	\$75,916,185	\$78,058,081	\$78,723,849	\$734,781	\$756,309	\$762,971	1.0%	1.0%	1.0%	\$202,451,136			
Total Industrial	\$164,324,258	\$167,888,991	\$169,915,009	\$162,541,504	\$166,067,873	\$168,070,991	\$1,782,754	\$1,821,118	\$1,844,018	1.1%	1.1%	1.1%	\$432,700,295			
Municipal ⁽²⁾	\$20,914,608	\$21,186,843	\$20,957,207	\$20,658,246	\$20,927,144	\$20,700,322	\$256,362	\$259,699	\$256,884	1.2%	1.2%	1.2%	\$54,382,028			
Unmetered	\$22,101,080	\$22,236,687	\$22,169,553	\$21,933,146	\$22,087,722	\$22,001,099	\$167,934	\$168,964	\$168,454	0.8%	0.8%	0.8%	\$57,354,911			
Total Other	\$43,015,688	\$43,423,530	\$43,126,760	\$42,591,392	\$42,994,866	\$42,701,421	\$424,296	\$428,664	\$425,339	1.0%	1.0%	1.0%	\$111,736,939			
Total F&M Classes	\$1,335,468,171	\$1,358,231,253	\$1,378,545,917	\$1,318,927,037	\$1,341,374,035	\$1,361,402,125	\$16,541,134	\$16,857,218	\$17,143,792	1.254%	1.257%	1.259%	\$3,509,340,792			

2016 Rates

2016					2017					2018					2019					2020				
FX Cost	Fuel-related		Total	FX Cost	Fuel-related		Total	FX Cost	Fuel-related		Total	FX Cost	Fuel-related		Total	FX Cost	Fuel-related		Total	FX Cost	Fuel-related		Total	
	BCF	Adjustment			Total	BCF			Adjustment	Total			BCF	Adjustment			Total	BCF			Adjustment	Total		
\$460,259,589	\$240,558,165	\$0	\$240,558,165	\$700,817,754	\$464,444,528	\$241,838,851	\$0	\$241,838,851	\$706,283,379	\$468,087,652	\$244,008,479	\$0	\$244,008,479	\$712,096,132	\$471,129,931	\$245,816,195	\$0	\$245,816,195	\$716,946,127	\$475,366,114	\$248,300,327	\$0	\$248,300,327	\$723,666,441
\$24,424,349	\$13,683,753	\$0	\$13,683,753	\$38,108,102	\$25,748,772	\$14,515,177	\$0	\$14,515,177	\$40,263,949	\$25,741,311	\$14,493,755	\$0	\$14,493,755	\$40,235,065	\$25,750,608	\$14,483,253	\$0	\$14,483,253	\$40,233,862	\$25,887,450	\$14,556,630	\$0	\$14,556,630	\$40,444,080
\$188,822,672	\$131,932,851	\$0	\$131,932,851	\$320,755,523	\$182,463,420	\$127,498,807	\$0	\$127,498,807	\$309,962,227	\$181,587,951	\$126,887,061	\$0	\$126,887,061	\$308,475,012	\$180,955,225	\$126,444,936	\$0	\$126,444,936	\$307,400,161	\$181,226,794	\$126,634,698	\$0	\$126,634,698	\$307,861,493
\$24,881,649	\$20,335,158	\$0	\$20,335,158	\$45,216,807	\$25,218,945	\$20,787,885	\$0	\$20,787,885	\$46,006,829	\$25,126,457	\$20,645,601	\$0	\$20,645,601	\$45,772,058	\$25,033,969	\$20,503,317	\$0	\$20,503,317	\$45,537,286	\$24,941,910	\$20,361,691	\$0	\$20,361,691	\$45,303,601
\$238,128,670	\$165,951,761	\$0	\$165,951,761	\$404,080,431	\$233,431,137	\$162,801,869	\$0	\$162,801,869	\$396,233,006	\$232,455,719	\$162,026,417	\$0	\$162,026,417	\$394,482,135	\$231,739,803	\$161,431,506	\$0	\$161,431,506	\$393,171,309	\$232,056,154	\$161,553,020	\$0	\$161,553,020	\$393,609,174
\$19,038,685	\$13,061,307	\$0	\$13,061,307	\$32,099,992	\$19,356,297	\$13,281,103	\$0	\$13,281,103	\$32,637,400	\$19,321,840	\$13,257,460	\$0	\$13,257,460	\$32,579,300	\$19,310,991	\$13,250,017	\$0	\$13,250,017	\$32,561,008	\$19,330,188	\$13,263,188	\$0	\$13,263,188	\$32,593,376
\$29,257,033	\$23,209,111	\$0	\$23,209,111	\$52,466,144	\$30,123,594	\$23,440,851	\$0	\$23,440,851	\$53,564,445	\$30,342,802	\$23,611,429	\$0	\$23,611,429	\$53,954,231	\$30,502,261	\$23,735,513	\$0	\$23,735,513	\$54,237,774	\$30,544,767	\$23,768,590	\$0	\$23,768,590	\$54,313,357
\$5,621,129	\$4,560,898	\$0	\$4,560,898	\$10,182,027	\$6,845,904	\$6,120,818	\$0	\$6,120,818	\$12,966,722	\$6,814,788	\$6,071,338	\$0	\$6,071,338	\$12,886,126	\$6,783,672	\$6,021,858	\$0	\$6,021,858	\$12,805,530	\$6,752,700	\$5,972,608	\$0	\$5,972,608	\$12,725,308
\$26,943,177	\$28,677,384	\$0	\$28,677,384	\$55,620,561	\$30,695,058	\$31,386,264	\$0	\$31,386,264	\$62,081,322	\$31,477,707	\$32,064,566	\$0	\$32,064,566	\$63,542,273	\$31,475,343	\$32,060,238	\$0	\$32,060,238	\$63,535,582	\$31,393,935	\$31,911,157	\$0	\$31,911,157	\$63,305,093
\$32,564,306	\$33,238,282	\$0	\$33,238,282	\$65,802,588	\$37,540,962	\$37,507,082	\$0	\$37,507,082	\$75,048,045	\$38,292,495	\$38,135,904	\$0	\$38,135,904	\$76,428,399	\$38,259,016	\$38,082,097	\$0	\$38,082,097	\$76,341,112	\$38,146,635	\$37,883,765	\$0	\$37,883,765	\$76,030,400
\$80,860,024	\$69,508,700	\$0	\$69,508,700	\$150,368,724	\$87,020,853	\$74,229,036	\$0	\$74,229,036	\$161,249,889	\$87,957,136	\$75,004,794	\$0	\$75,004,794	\$162,961,930	\$88,072,268	\$75,067,626	\$0	\$75,067,626	\$163,139,894	\$88,021,590	\$74,915,543	\$0	\$74,915,543	\$162,937,133
\$11,102,264	\$9,047,284	\$0	\$9,047,284	\$20,149,547	\$11,434,475	\$8,887,713	\$0	\$8,887,713	\$20,322,188	\$11,438,861	\$8,895,354	\$0	\$8,895,354	\$20,334,215	\$11,271,608	\$8,604,011	\$0	\$8,604,011	\$19,875,620	\$10,947,912	\$8,040,158	\$0	\$8,040,158	\$18,988,070
\$17,543,292	\$5,745,785	\$0	\$5,745,785	\$23,289,077	\$16,434,272	\$5,497,838	\$0	\$5,497,838	\$21,932,109	\$16,498,166	\$5,403,485	\$0	\$5,403,485	\$21,901,651	\$16,323,375	\$5,346,238	\$0	\$5,346,238	\$21,669,613	\$16,328,230	\$5,347,828	\$0	\$5,347,828	\$21,676,058
\$28,645,556	\$14,793,069	\$0	\$14,793,069	\$43,438,624	\$27,868,747	\$14,385,550	\$0	\$14,385,550	\$42,254,297	\$27,937,027	\$14,298,839	\$0	\$14,298,839	\$42,235,866	\$27,594,983	\$13,950,249	\$0	\$13,950,249	\$41,545,232	\$27,276,142	\$13,387,985	\$0	\$13,387,985	\$40,664,128
\$807,893,839	\$490,811,695	\$0	\$490,811,695	\$1,298,705,534	\$812,765,265	\$493,255,307	\$0	\$493,255,307	\$1,306,020,572	\$816,437,535	\$495,338,528	\$0	\$495,338,528	\$1,311,776,063	\$818,536,985	\$496,265,576	\$0	\$496,265,576	\$1,314,802,562	\$822,720,000	\$498,156,875	\$0	\$498,156,875	\$1,320,876,875

Rate Plan

2016				2017				2018				2019				2020									
FX Cost	Fuel-related		Total	FX Cost	Fuel-related		Total	FX Cost	Fuel-related		Total	FX Cost	Fuel-related		Total	FX Cost	Fuel-related		Total	FX Cost	Fuel-related		Total	Unit Rev	
	BCF	Adjustment			Total	BCF			Adjustment	Total			BCF	Adjustment			Total	BCF			Adjustment	Total			BCF
\$460,259,589	\$240,558,165	\$0	\$240,558,165	\$700,817,754	\$464,444,528	\$228,700,115	\$30,844,844.54	\$259,544,960	\$723,989,488	\$468,087,652	\$315,943,371	-\$43,055,057.92	\$272,888,313	\$740,975,966	\$471,129,931	\$321,240,057	-\$35,072,572.73	\$286,167,485	\$757,297,416	\$475,366,114	\$337,857,647	\$0.0	\$337,857,647	\$813,223,761	17.567
\$24,424,349	\$13,683,753	\$0	\$13,683,753	\$38,108,102	\$25,748,772	\$13,588,817	\$1,440,072	\$15,028,889	\$40,777,661	\$25,741,311	\$17,604,720	-\$2,078,123	\$15,526,597	\$41,267,908	\$25,750,608	\$17,753,529	-\$1,711,685	\$16,041,844	\$41,792,452	\$25,887,450	\$18,633,210	\$0	\$18,633,210	\$44,520,659	16.901
\$188,822,672	\$131,932,851	\$0	\$131,932,851	\$320,755,523	\$182,463,420	\$119,834,100	\$14,356,147	\$134,190,246	\$316,653,666	\$181,587,951	\$153,829,665	-\$17,999,300	\$135,830,365	\$317,418,315	\$180,955,225	\$155,184,722	-\$17,535,137	\$137,649,585	\$318,604,810	\$181,226,794	\$162,938,962	\$0	\$162,938,962	\$344,165,756	14.291
\$24,881,649	\$20,335,158	\$0	\$20,335,158	\$45,216,807	\$25,218,945	\$19,554,329	\$1,934,135	\$21,488,464	\$46,707,409	\$25,126,457	\$24,673,184	-\$2,543,098	\$22,130,086	\$47,256,543	\$25,033,969	\$24,873,915	-\$2,098,414	\$22,775,501	\$47,809,470	\$24,941,910	\$25,990,002	\$0	\$25,990,002	\$50,931,912	12.513
\$238,128,670	\$165,951,761	\$0	\$165,951,761	\$404,080,431	\$233,431,137	\$152,977,246	\$17,730,354	\$170,707,600	\$404,138,737	\$232,455,719	\$196,107,569	-\$22,620,521	\$173,487,048	\$405,942,767	\$231,739,803	\$197,812,165	-\$21,345,236	\$176,466,929	\$408,206,732	\$232,056,154	\$207,562,174	\$0	\$207,562,174	\$439,618,328	14.279
\$19,038,685	\$13,061,307	\$0	\$13,061,307	\$32,099,992	\$19,356,297	\$12,548,882	\$1,382,981	\$13,931,863	\$33,288,160	\$19,321,840	\$16,132,494	-\$1,832,537	\$14,299,957	\$33,621,797	\$19,310,991	\$16,350,955	-\$1,661,710	\$14,689,245	\$34,000,236	\$19,330,188	\$17,181,770	\$0	\$17,181,770	\$36,511,958	14.247
\$29,257,033	\$23,209,111	\$0	\$23,209,111	\$52,466,144	\$30,123,594	\$22,045,695	\$2,215,844	\$24,261,539	\$54,385,133	\$30,342,802	\$28,181,928	-\$3,071,926	\$25,110,003	\$55,452,804	\$30,502,261	\$28,776,404	-\$2,850,713	\$25,925,692	\$56,427,953	\$30,544,767	\$30,312,060	\$0	\$30,312,060	\$60,856,827	12.619
\$5,621,129	\$4,560,898	\$0	\$4,560,898	\$10,182,027	\$6,845,904	\$5,751,294	\$634,915	\$6,386,209	\$13,232,114	\$6,814,788	\$7,178,323	-\$741,177	\$6,437,146	\$13,251,934	\$6,783,672	\$7,236,831	-\$749,437	\$6,487,394	\$13,271,067	\$6,752,700	\$7,561,463	\$0	\$7,561,463	\$14,314,164	11.521
\$26,943,177	\$28,677,384	\$0	\$28,677,384	\$55,620,561	\$30,695,058	\$29,491,425	\$3,232,369	\$32,723,794	\$63,418,852	\$31,477,707	\$37,910,885	-\$3,826,136	\$34,084,749	\$65,562,456	\$31,475,343	\$38,528,725	-\$3,788,316	\$34,740,410	\$66,215,753	\$31,393,935	\$40,400,286	\$0	\$40,400,286	\$71,794,221	10.815
\$32,564,306	\$33,238,282	\$0	\$33,238,282	\$65,802,588	\$37,540,962	\$35,242,719	\$3,867,284	\$39,110,003	\$76,650,966	\$38,292,495	\$45,089,208	-\$4,567,313	\$40,521,895	\$78,814,390	\$38,259,016	\$45,766,556	-\$4,537,752	\$41,227,804	\$79,486,820	\$38,146,635	\$47,961,749	\$0	\$47,961,749	\$86,108,385	10.926
\$80,860,024	\$69,508,700	\$0	\$69,508,700	\$150,368,724	\$87,020,853	\$69,837,296	\$7,466,109	\$77,303,405	\$164,324,258	\$87,957,136	\$89,403,630	-\$9,471,776	\$79,931,854	\$167,888,991	\$88,072,268	\$90,892,916	-\$9,050,175	\$81,842,741	\$169,915,009	\$88,021,590	\$95,455,580	\$0	\$95,455,580	\$183,477,170	12.018
\$11,102,264	\$9,047,284	\$0	\$9,047,284	\$20,149,547	\$11,434,475	\$8,387,562	\$1,092,570	\$9,480,133	\$20,914,608	\$11,438,861	\$11,134,818	-\$1,386,837	\$9,747,982	\$21,186,843	\$11,271,608	\$10,890,680	-\$1,205,081	\$9,685,598	\$20,957,207	\$10,947,912	\$10,661,670	\$0	\$10,661,670	\$21,609,582	13.434
\$17,543,292	\$5,745,785	\$0	\$5,745,785	\$23,289,077	\$16,434,272	\$5,163,406	\$503,403	\$5,666,809	\$22,101,080	\$16,498,166	\$6,660,842	-\$853,321	\$5,738,521	\$22,236,687	\$16,323,375	\$6,699,251	\$5,846,178	-\$22,169,553	\$16,328,230	\$7,009,686	\$0	\$7,009,686	\$23,337,916	23.132	
\$28,645,556	\$14,793,069	\$0	\$14,793,069	\$43,438,624	\$27,868,747	\$13,550,968	\$1,595,973	\$15,146,941	\$43,015,688	\$27,937,027	\$17,795,660	-\$2,309,157	\$15,486,503	\$43,423,530	\$27,594,983	\$17,589,931	-\$2,058,154	\$15,531,777	\$43,126,760	\$27,276,142	\$17,671,356	\$0	\$17,671,356	\$44,947,498	17.172
\$807,893,839	\$490,811,695	\$0	\$490,811,695	\$1,298,705,534	\$812,765,265	\$465,065,625	\$57,637,280.73	\$522,702,906	\$1,335,468,171	\$816,437,535	\$619,250,230	-\$77,456,512	\$541,793,718	\$1,358,231,253	\$818,536,985	\$627,535,070	-\$67,526,138	\$560,008,932	\$1,378,545,917	\$822,720,000	\$658,546,756	\$0	\$658,546,756	\$1,481,266,756	15.598

Revised Percent Change-Without RSA/FAM				
FAM Classes	2017	2018	2019	2020
Residential	1.5%	1.5%	1.5%	6.4%
Small General	1.3%	1.3%	1.3%	6.0%
General Demand	0.7%	0.7%	0.7%	7.9%
<u>Large General</u>	<u>1.7%</u>	<u>1.7%</u>	<u>1.7%</u>	<u>7.1%</u>
Total Commercial	0.9%	0.9%	0.9%	7.6%
Small Industrial	1.2%	1.2%	1.2%	7.3%
Medium Industrial	1.2%	1.2%	1.2%	7.7%
Large Industrial				
Firm	0.8%	0.8%	0.8%	8.5%
Interruptible	1.0%	1.0%	1.0%	8.8%
<u>Large Industrial Total</u>	<u>1.0%</u>	<u>1.0%</u>	<u>1.0%</u>	<u>8.8%</u>
Total Industrial	1.1%	1.1%	1.1%	8.1%
Municipal	1.2%	1.2%	1.2%	8.1%
<u>Unmetered</u>	<u>0.8%</u>	<u>0.8%</u>	<u>0.8%</u>	<u>5.2%</u>
Total Other	1.0%	1.0%	1.0%	6.6%
Total FAM Classes	1.3%	1.3%	1.3%	7.0%

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)
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Request IR-4:

Reference p. 24, ll. 6-7. Section 10 of the EPIA states that “any adjustments implemented on January 1, 2017, must remain in place throughout the Rate Stability Period and must be adjusted so that any intended recovery or reimbursement of costs is made over the course of the Rate Stability Period.”

(a) Please explain why NS Power proposes to set the AA and BA to zero, rather than at rates that would recover or reimburse over the Rate Stability Period AA and BA amounts for 2016 (as those amounts would be determined based on ten months of actual and two months of forecasted costs pursuant to the Plan of Administration).

(b) Please provide NS Power’s current estimate of the 2016 AA and BA amounts in total and by rate class.

(c) Based on NS Power’s current estimate of the 2016 AA and BA amounts by rate class, please estimate the AA and BA rate for each rate class that would allow for recovery of the full 2016 AA and BA amounts (along with interest accrued on unrecovered amounts) by the end of the Rate Stability Period.

Response IR-4:

(a) The filing date of the Rate Stability Plan Application precedes the FAM AA/BA Rider filing schedule by eight months. The year-to-date fuel cost imbalance in the recovery of the 2016 base cost of fuel as of the end of February 2016 does not provide a sufficient foundation for accurate estimation of the FAM AA riders. At this point, the Company projects the imbalance in recovery of 2016 AA and BA amounts to be zero. Any actual imbalances in recovery of 2016 AA and BA will be addressed in the FAM AA/BA proceeding later this year.

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1 (b-c) The Company has not made a determination of the outstanding imbalances in recovery of
2 the 2016 Base Cost of Fuel and FAM AA and BA riders by rate classes for the purpose of
3 this proceeding. The most recent estimate of the imbalance in recovery of the 2016 Base
4 Cost of Fuel cost comes from the end of February 2016 and represents an over-recovery
5 of \$6.8 million. The FAM BA estimate, reflecting primarily a true-up of forecast costs
6 from November and December 2015, is an under-recovery of \$1.4 million. Their net
7 effect is an estimated over-recovery of \$5.4 million. This estimate, however, reflects
8 only a two month history which is too short to provide a solid foundation for a
9 determination of the final outstanding fuel cost amounts from 2016.

10
11 The Company will seek a recovery or reimbursement of these amounts during the 2017-
12 2019 rate stability period through the FAM AA/BA riders for which it will apply in
13 November 2016.

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)
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Request IR-5:

Reference p. 25, ll. 12-14.

(a) Please explain in detail how the hedge plan described in Appendix D differs from the current risk strategy or hedging plan, in terms of such elements as duration of contracts by fuel type, Value at Risk assumptions or model, and derivation of upside tolerance for risk exposure.

(b) Please explain in detail how the hedge strategy described in Appendix D will be implemented, including:

(i) How the quantities of each fuel type to be hedged will be determined.

(ii) The frequency of hedging operations by contract type.

(iii) Which types of hedge contract will be used for each fuel type.

(iv) How hedging performance will be evaluated.

Response IR-5:

(a) NS Power's current risk management and hedging practices have been designed to generally smooth fuel costs by mitigating the impact of price movements over time. These hedging programs are detailed in NS Power's Fuel Manual. The Fuel Hedging Plan, as detailed in Appendix D, is designed with the objective of reducing fuel cost variability specific to the Rate Stability Period. This will be achieved by increasing the target hedge percentage to between 75 and 100% of fuel costs where suitable cost-effective hedges are available. Appendix A to the Fuel Hedging Plan contains a table that outlines the current approach to hedging for each fuel type.

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1 The duration of contracts will vary by commodity and hedging instrument. Value (i.e.
2 Forecast/Budget) at Risk (VaR) will be used as a measure of potential variability in total
3 fuel costs in the aggregate fuel and purchased power portfolio.
4

5 (b) (i) The forecast of fuel requirements during the Rate Stability Period will be
6 determined through the use of PLEXOS, consistent with NS Power's current fuel
7 forecasting practices. The regular forecast updating will allow NS Power to
8 optimize its portfolio through rebalancing its portfolio of physical and financial
9 contracts. The Fuel Hedging Plan will enable the Company to hedge 75-100% of
10 the volumetric fuel requirements during the Rate Stability Period. The exact
11 volumes that will be hedged depend on the availability of suitable, cost-effective
12 hedging products and market liquidity but the Company intends to target the
13 higher end of the range for the period.
14

15 (ii) NS Power anticipates updating its model runs in PLEXOS once each quarter
16 during the Rate Stability Period. Should the updated forecasts show a significant
17 change in the expected consumption of any fuel, NS Power will evaluate its
18 portfolio and the availability of suitable cost-effective hedges, and rebalance its
19 portfolio as necessary. The actual execution of hedges may occur at any point in
20 time depending on market conditions. Should material changes in market
21 conditions occur between regular quarterly forecasts, NS Power may perform
22 additional PLEXOS runs to update its fuel consumption forecast.
23

24 (iii) A table of primary and secondary hedging products and contract types can be
25 found in Appendix C to the Fuel Hedging Plan. This list contains specific
26 products and indices that NS Power has identified as being relevant to its hedging
27 activities. This list may be updated or expanded should alternative hedging
28 products or contracts be identified that will assist NS Power in meeting the
29 objectives of the hedging plan.
30

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)
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1 (iv) Ex ante,¹ individual hedges will be evaluated in terms of their expected reduction
2 in fuel cost variability as measure by portfolio VaR. A reduction in VaR indicates
3 that the hedge is expected to reduce fuel cost variability, thereby meeting a
4 primary objective of the Fuel Hedging Plan. Ex post,² the effectiveness of NS
5 Power's Fuel Hedging Plan can be measured by evaluating variability in actual
6 fuel costs during the Rate Stability Period. A more effective hedging plan will
7 result in a larger reduction in the variance of actual fuel costs costs.

¹ Ex ante: based on forecasts rather than actual results.

² Ex post: based on actual results rather than forecasts.

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)
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REDACTED

Request IR-6:

Reference p. 29, ll. 5-6. With regard to the modeling of exports:

- (a) Please explain and quantify how the Maritime Link transmission projects affect NS Power's ability to export energy to New Brunswick and New England, and how that ability was modeled in the Application.
- (b) Please describe the manner in which NS Power projected the quantity and price of exports of NS Power energy to New Brunswick and New England, given the availability of increased transmission.
- (c) Please describe the manner in which NS Power projected the quantity and price of exports of NS Power renewable energy to New England, given the availability of increased transmission and NS Power's surplus supply of renewable energy.
- (d) Please provide any data available to NS Power regarding prices for renewable energy credits in any New England state, in any year from 2016 through 2020.
- (e) Please explain whether NS Power has approached any parties active in the New England power markets to determine the feasibility of selling renewable energy to New England.
- (f) Please provide any reports or analyses by or for NS Power regarding the market for Nova Scotia renewables in New England and the costs of wheeling renewable energy to New England.

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)
NSPI Responses to Consumer Advocate Information Requests

REDACTED

1 Response IR-6:

2
3 (a-b) The current maximum capacity for export from Nova Scotia is 350 MW provided that
4 Point Aconi and one Lingan thermal generating unit generating are in operation to each
5 run-back over 150 MW of exports in the event this is necessary. When exporting
6 between 100 to 225 MW, only one thermal unit is targeted for run-back. When exporting
7 above 225 MW, it is necessary to operate both Point Aconi and one Lingan thermal
8 generating unit at 150 MW or above. Of the 350 MW maximum export capacity, 172
9 MW must be maintained to deliver reserve to New Brunswick, leaving 178 MW of firm
10 capacity. Transmission capacity from 178 MW to 350 MW is considered non-firm.

11
12 Once the Maritime Link transmission upgrades are complete, the total export capacity
13 will be increased to 502 MW, including 330 MW firm and 172 MW of reserve delivery
14 capacity. There must be at least 330 MW being imported through the Maritime Link to
15 provide run-back, or the Point Aconi generating unit and one generating unit at Lingan
16 must be in operation to reach this export capacity.

17
18 The maximum export capacity assumed in the Application was 150 MW until September
19 30, 2017. Once the Maritime Link transmission upgrades are approved by the UARB and
20 complete the maximum export capacity increases to 330 MW starting from October 1,
21 2017 and continuing for the remainder of the study period. In order to maintain the
22 reserve deliverability to New Brunswick, 172 MW has been excluded from the assumed
23 export capacity. In addition to this assumption, NS Power also assumed that all of the
24 export volumes are under the Co-operative Dispatch Agreement with NB Power.

25
26 The methodology that NS Power has used to forecast the price of exported power in this
27 Application also assumes that the majority of the time, opportunities to export to New
28 Brunswick will be triggered by marginal cost oil-fired generation in New Brunswick
29 being displaced by less expensive marginal cost coal-fired generation in Nova Scotia.
30

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)
NSPI Responses to Consumer Advocate Information Requests

REDACTED

1 In accordance with the Pilot Joint Dispatch Bilateral Agreement (Joint Dispatch
2 Agreement) between NS Power and NB Power, the regional benefit from imports and
3 exports is shared equally between the parties. This principle of the Agreement forms the
4 basis of the export pricing assumed for this Application being the midpoint between the
5 forecast cost of marginal coal-fired generation in Nova Scotia (Lingan) and marginal oil-
6 fired generation in New Brunswick.

7
8 These forecast prices are input into the PLEXOS optimization software model to develop
9 the forecast fuel and purchased power costs for the rate stability period. One of the
10 outputs from this optimization modeling is the forecast volume of exports. Consistent
11 with the methodology for forecasting export power in Section 6.0 of Appendix B of the
12 FAM Plan of Administration (POA), the PLEXOS forecast model was constrained to
13 limit the export volumes in each month to the historical monthly average for the prior
14 year. For the purpose of this Application, the prior year is 2015 and the annual volume of
15 exports was restricted to a maximum of ■ GWh.

16
17 (c) NS Power has not projected any quantity of NS Power renewable energy being exported
18 to New England in this Application.

19
20 (d) NS Power receives price indications for traded environmental instruments from ICAP
21 LLC of Sugarland, Texas USA which include price indications for qualified Renewable
22 Energy Credits of various classes in the New England states. The most recent copy of this
23 publication that NS Power has is attached as Confidential Attachment 1.

24
25 (e) NS Power has recently approached a party that is active in the New England power
26 market to explore the provision of certain services to export renewable energy from Nova
27 Scotia to the New England power market. This opportunity is still in preliminary
28 evaluation stages.

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)

NSPI Responses to Consumer Advocate Information Requests

REDACTED

- 1 (f) NS Power continues to explore its commercial options and will provide detailed reports
2 when a decision to transact or not has been reached by management.

REDACTED (CONFIDENTIAL INFORMATION REMOVED)

CA IR-6 Attachment 1 has been removed due to confidentiality.

REDACTED (CONFIDENTIAL INFORMATION REMOVED)

2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)
NSPI Responses to Consumer Advocate Information Requests

CONFIDENTIAL (Attachment Only)

Request IR-7:

Reference p. 31, Figure 6.

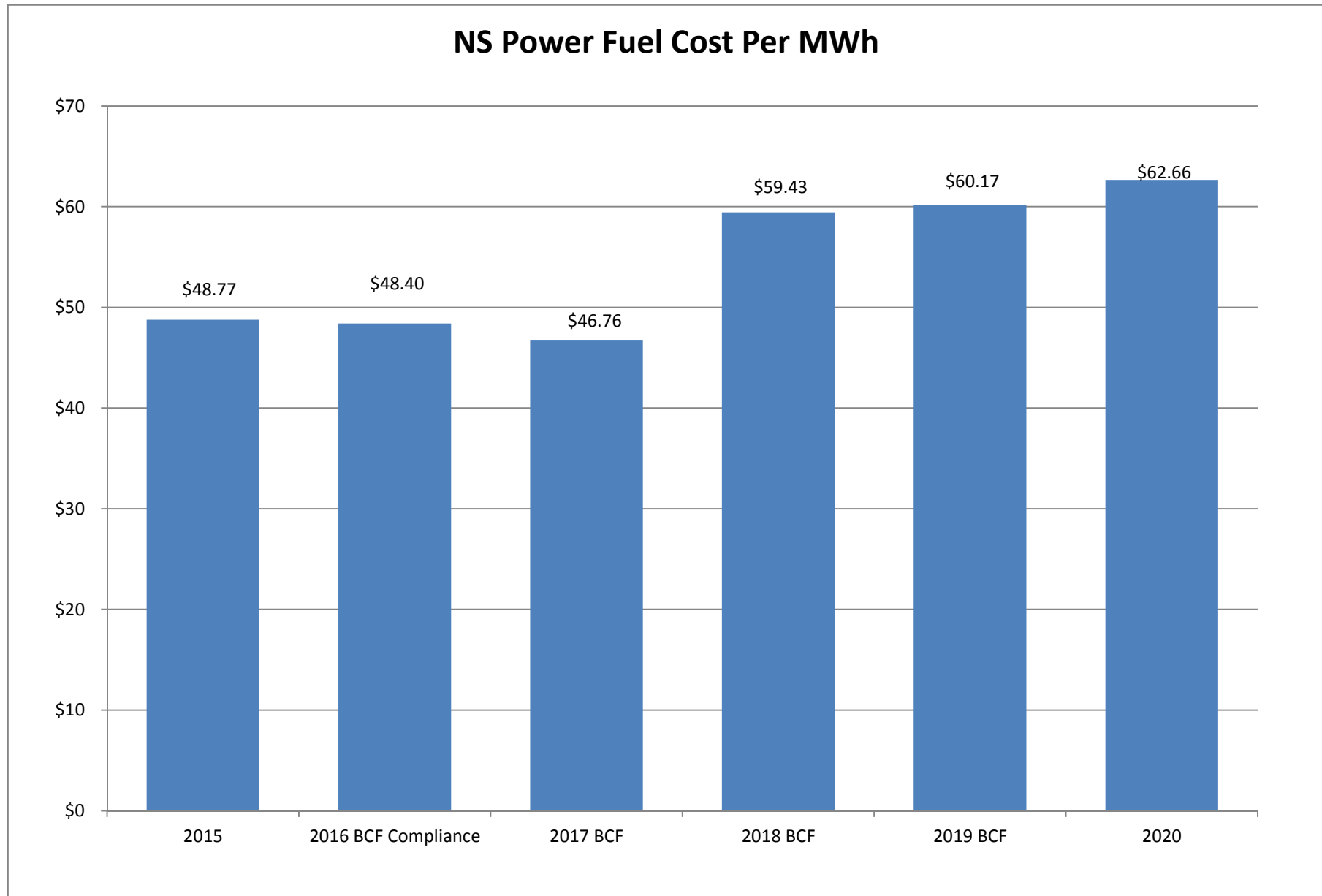
(a) Please provide a copy of the electronic spreadsheet file, with all cell formulas and file linkages intact, relied on to generate Figure 6. Please provide copies of all linked spreadsheet files.

(b) Please provide copies of all workpapers, including electronic spreadsheets with cell formulas and file linkages intact, relied on to derive the fuel costs per MWh shown in Figure 6 for the years 2017 through 2020.

Response IR-7:

(a) Please refer to Attachment 1.

(b) The data used to generate Figure 6 are the 2016 BCF Compliance and 2017 to 2019 BCF fuel decks are provided in NS Power's 2017-2019 Fuel Stability Plan as Appendix A OE-01B Confidential Attachment 1 and Appendix A OE-01A Confidential Attachments 1 to 3. The fuel deck for 2015 Actual Fuel and Purchased Power costs is contained in Confidential Attachment 2 and the 2020 Forecast fuel deck is contained in Confidential Attachment 3.



Year	Net Fuel Cost (\$/Mwh)	
2015	\$	48.77
2016 BCF Compliance	\$	48.40
2017 BCF	\$	46.76
2018 BCF	\$	59.43
2019 BCF	\$	60.17
2020	\$	62.66

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CA IR-7 Attachments 2-3 have been removed due to confidentiality.

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)
NSPI Responses to Consumer Advocate Information Requests

NON-CONFIDENTIAL

1 **Request IR-8:**

2
3 **Reference p. 32, Figure 7.**

4
5 (a) **Please provide a copy of the electronic spreadsheet file, with all cell formulas and**
6 **file linkages intact, relied on to generate Figure 7. Please provide copies of all linked**
7 **spreadsheet files.**

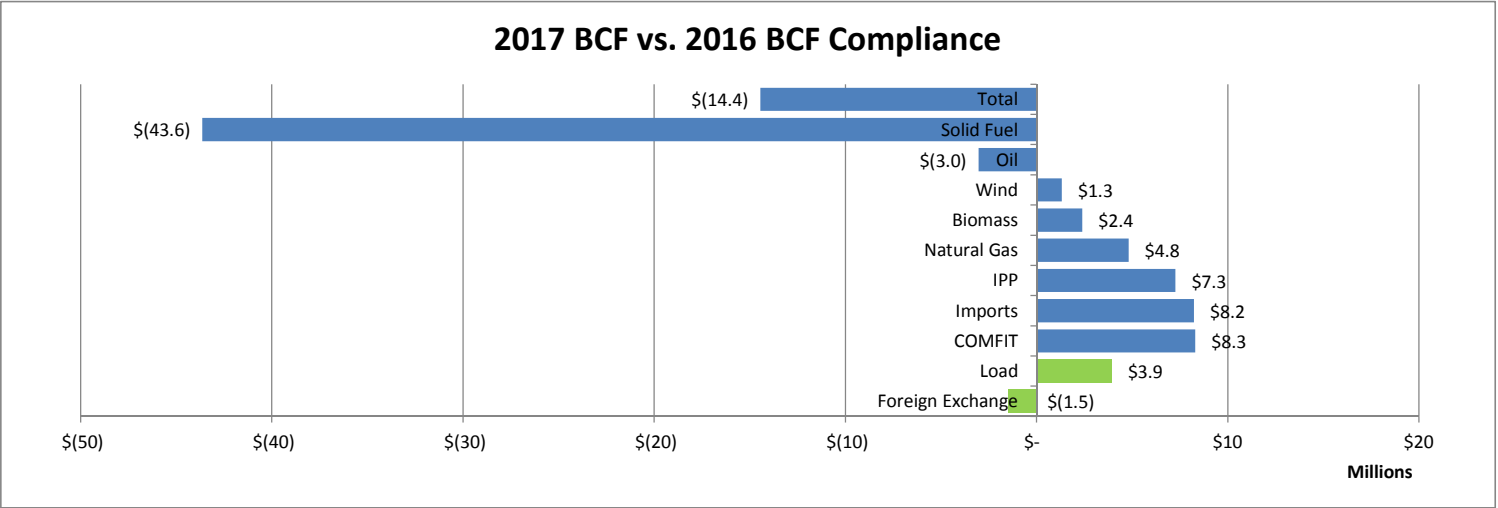
8
9 (b) **Please provide copies of all workpapers, including electronic spreadsheets with cell**
10 **formulas and file linkages intact, relied on to derive Figure 7.**

11
12 **Response IR-8:**

13
14 (a) **Please refer to Attachment 1.**

15
16 (b) **The data used to generate Figure 7 are the 2016 and 2017 fuel decks provided in NS**
17 **Power's 2017-2019 Fuel Stability Plan filing as Appendix A OE-01B Confidential**
18 **Attachment 1 and Appendix A OE-01A Confidential Attachment 1.**

		2017 BCF	2016 BCF Compliance	Variance
Load (MWh)		84,079.00		
	\$/MWh	46.76	48.40	3,931,128.79
Solid Fuel	mmBtu	61,814,145	64,607,056	
	\$	\$ 191,559,358	\$ 233,536,104	\$ (41,976,746)
Natural Gas	mmBtu	8,996,072	8,031,914	
	\$	\$ 46,449,254	\$ 41,639,639	\$ 4,809,615
Biomass	mmBtu	4,188,305	3,868,556	
	\$	\$ 27,163,209	\$ 24,778,436	\$ 2,384,773
HFO	mmBtu	997,426	1,297,242	
	\$	\$ 8,671,555	\$ 11,255,090	\$ (2,583,535)
Furnace Oil	mmBtu	140,297	156,088	
	\$	\$ 1,834,960	\$ 2,035,098	\$ (200,138)
Diesel	mmBtu	22,365	38,725	
	\$	\$ 327,530	\$ 571,781	\$ (244,251)
Additives	\$	\$ 3,930,270	\$ 3,950,517	\$ (20,247)
	Hg Additives	\$ 9,389,596	\$ 11,023,524	\$ (1,633,928)
Imports	MWh	890,754	674,659	
	\$	\$ 33,493,985	\$ 25,270,791	\$ 8,223,194
Wind	MWh	1,102,054	1,091,131	
	\$	\$ 80,523,107	\$ 79,202,932	\$ 1,320,176
	\$/MWh	\$ 73.066	\$ 72.588	
IPP's	MWh	101,246	88,956	
	\$	\$ 25,290,820	\$ 18,030,004	\$ 7,260,816
COMFIT	MWh	636,060	584,180	
	\$	\$ 92,312,638	\$ 84,010,640	\$ 8,301,998
Adjustments	\$	\$ 6,597,041	\$ 6,679,522	\$ (82,481)
Maritime Link	MWh			
	\$	-		\$ -
		\$ 527,543,323	\$ 541,984,078 (14,440,754)	\$ (14,440,754)
			Foreign Exchange	\$ (1,489,940)
			Load	\$ 3,931,129 3,931,128.79
			COMFIT	\$ 8,301,998 \$ 8,301,998
			Imports	\$ 8,223,194 \$ 8,223,194
			IPP	\$ 7,260,816 \$ 7,260,816
			Natural Gas	\$ 4,809,615 \$ 4,809,615
			Biomass	\$ 2,384,773 \$ 2,384,773
			Wind	\$ 1,320,176 \$ 1,320,176
			Oil	\$ (3,027,924) \$ (3,027,924)
			Solid Fuel	\$ (43,630,921) \$ (43,630,921)
			Total	\$ (14,440,754)



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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)
NSPI Responses to Consumer Advocate Information Requests

NON-CONFIDENTIAL

1 **Request IR-9:**

2
3 **Reference p. 33, Figure 8.**

4
5 (a) **Please provide a copy of the electronic spreadsheet file, with all cell formulas and**
6 **file linkages intact, relied on to generate Figure 8. Please provide copies of all linked**
7 **spreadsheet files.**

8
9 (b) **Please provide copies of all workpapers, including electronic spreadsheets with cell**
10 **formulas and file linkages intact, relied on to derive Figure 8.**

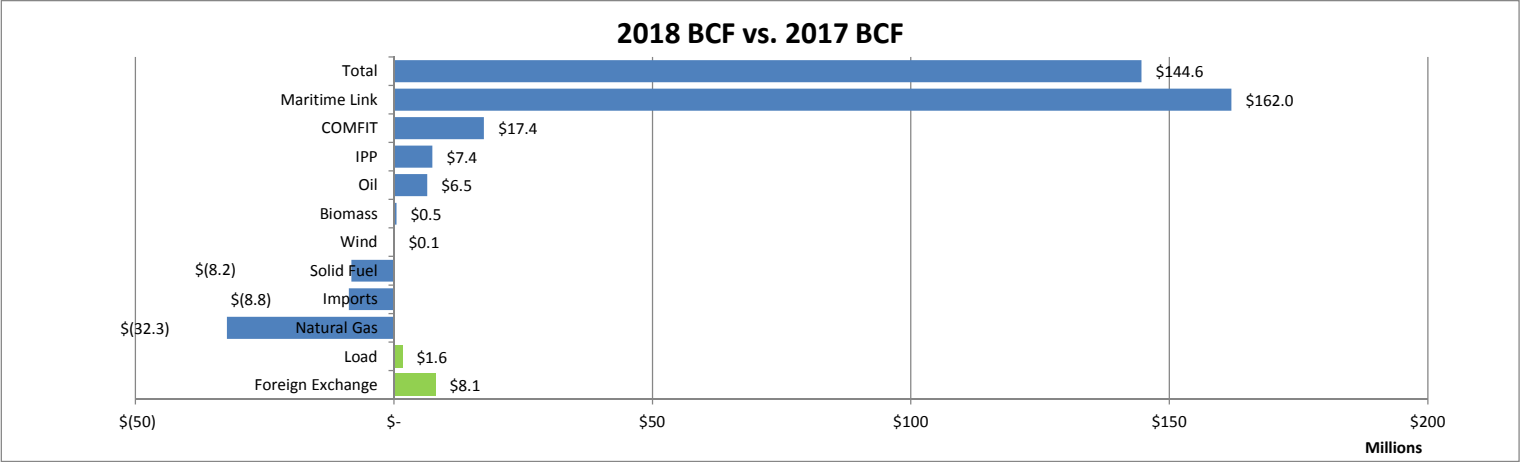
11
12 **Response IR-9:**

13
14 (a) **Please refer to Attachment 1.**

15
16 (b) **The data used to generate Figure 8 are the 2017 and 2018 forecast fuel decks provided in**
17 **NS Power's 2017-2019 Fuel Stability Plan filing as Appendix A OE-01A Confidential**
18 **Attachment 1 and Appendix A OE-01A Confidential Attachment 2.**

		2017 BCF		Variance
Load Variance (MWh)		26,894.00		
		\$/MWh	\$/MWh	1,598,245.95
		59.43	46.76	
Solid Fuel	mmBtu	62,075,757	61,814,145	
	\$	\$ 181,788,951	\$ 191,559,358	\$ (9,770,407)
Natural Gas	mmBtu	2,133,796	8,996,072	
	\$	\$ 14,143,843	\$ 46,449,254	\$ (32,305,411)
Biomass	mmBtu	4,188,305	4,188,305	
	\$	\$ 27,668,167	\$ 27,163,209	\$ 504,958
HFO	mmBtu	1,812,482	997,426	
	\$	\$ 15,033,935	\$ 8,671,555	\$ 6,362,380
Furnace Oil	mmBtu	137,028	140,297	
	\$	\$ 1,958,589	\$ 1,834,960	\$ 123,629
Diesel	mmBtu	20,622	22,365	
	\$	\$ 296,072	\$ 327,530	\$ (31,458)
Additives	\$	\$ 4,172,314	\$ 3,928,708	\$ 243,606
Hg Additives	\$	\$ 10,676,867	\$ 9,389,596	\$ 1,287,271
Imports	MWh	685,720	890,754	
	\$	\$ 24,739,450	\$ 33,493,985	\$ (8,754,535)
Wind	MWh	1,100,591	1,102,054	
	\$	\$ 80,668,502	\$ 80,523,107	\$ 145,395
IPP's	MWh	115,026	101,246	
	\$	\$ 32,714,657	\$ 25,290,820	\$ 7,423,837
COMFIT	MWh	716,284	636,060	
	\$	\$ 109,715,341	\$ 92,312,638	\$ 17,402,703
Adjustments	\$	\$ 6,548,738	\$ 6,597,041	\$ (48,303)
Maritime Link				
	\$	\$ 162,000,000		\$ 162,000,000
		\$ 672,125,267	\$ 527,541,761	\$ 144,583,665

Foreign Exchange	\$ 8,067,100	
Load	\$ 1,598,246	1,598,245.95
Natural Gas	\$ (32,305,411)	\$ (32,305,411)
Imports	\$ (8,754,535)	\$ (8,754,535)
Solid Fuel	\$ (8,239,530)	\$ (8,239,530)
Wind	\$ 145,395	\$ 145,395
Biomass	\$ 504,958	\$ 504,958
Oil	\$ 6,454,551	\$ 6,454,551
IPP	\$ 7,423,837	\$ 7,423,837
COMFIT	\$ 17,402,703	\$ 17,402,703
Maritime Link	\$ 162,000,000	\$ 162,000,000
Total	\$ 144,583,665	



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NSPI Responses to Consumer Advocate Information Requests

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1 **Request IR-10:**

2
3 **Reference p. 34, Figure 9.**

4
5 **(a) Please provide a copy of the electronic spreadsheet file, with all cell formulas and**
6 **file linkages intact, relied on to generate Figure 9. Please provide copies of all linked**
7 **spreadsheet files.**

8
9 **(b) Please provide copies of all workpapers, including electronic spreadsheets with cell**
10 **formulas and file linkages intact, relied on to derive Figure 9.**

11
12 **(c) Please provide a version of Figure 9 which shows the forecasted changes in BCF**
13 **component costs from 2019 to 2020.**

14
15 **(i) Please provide a copy of the electronic spreadsheet file, with all cell formulas**
16 **and file linkages intact, relied on to generate the 2019-2020 version of Figure**
17 **9. Please provide copies of all linked spreadsheet files.**

18
19 **(ii) Please provide copies of all workpapers, including electronic spreadsheets**
20 **with cell formulas and file linkages intact, relied on to derive the 2019-2020**
21 **version of Figure 9.**

22
23 **Response IR-10:**

24
25 **(a) Please refer to Attachment 1.**

26
27 **(b) The data used to generate Figure 9 come from the 2018 and 2019 fuel decks provided in**
28 **NS Power's 2017-2019 Fuel Stability Plan as Appendix A OE-01A Confidential**
29 **Attachment 2 and Appendix A OE-01A Confidential Attachment 3.**

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)

NSPI Responses to Consumer Advocate Information Requests

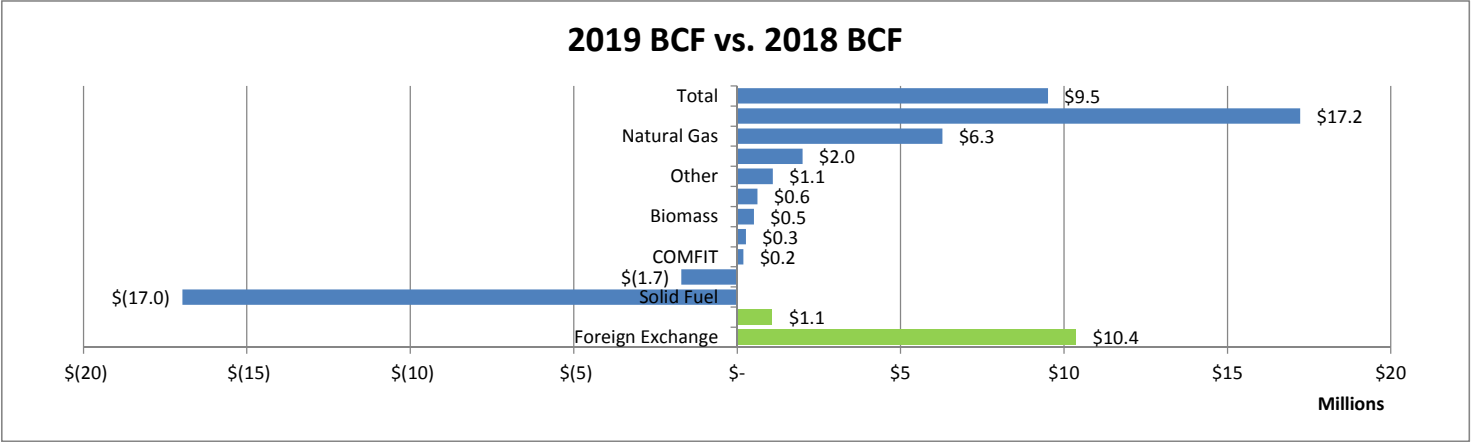
NON-CONFIDENTIAL

1 (c) (i) Please refer to Attachment 2.

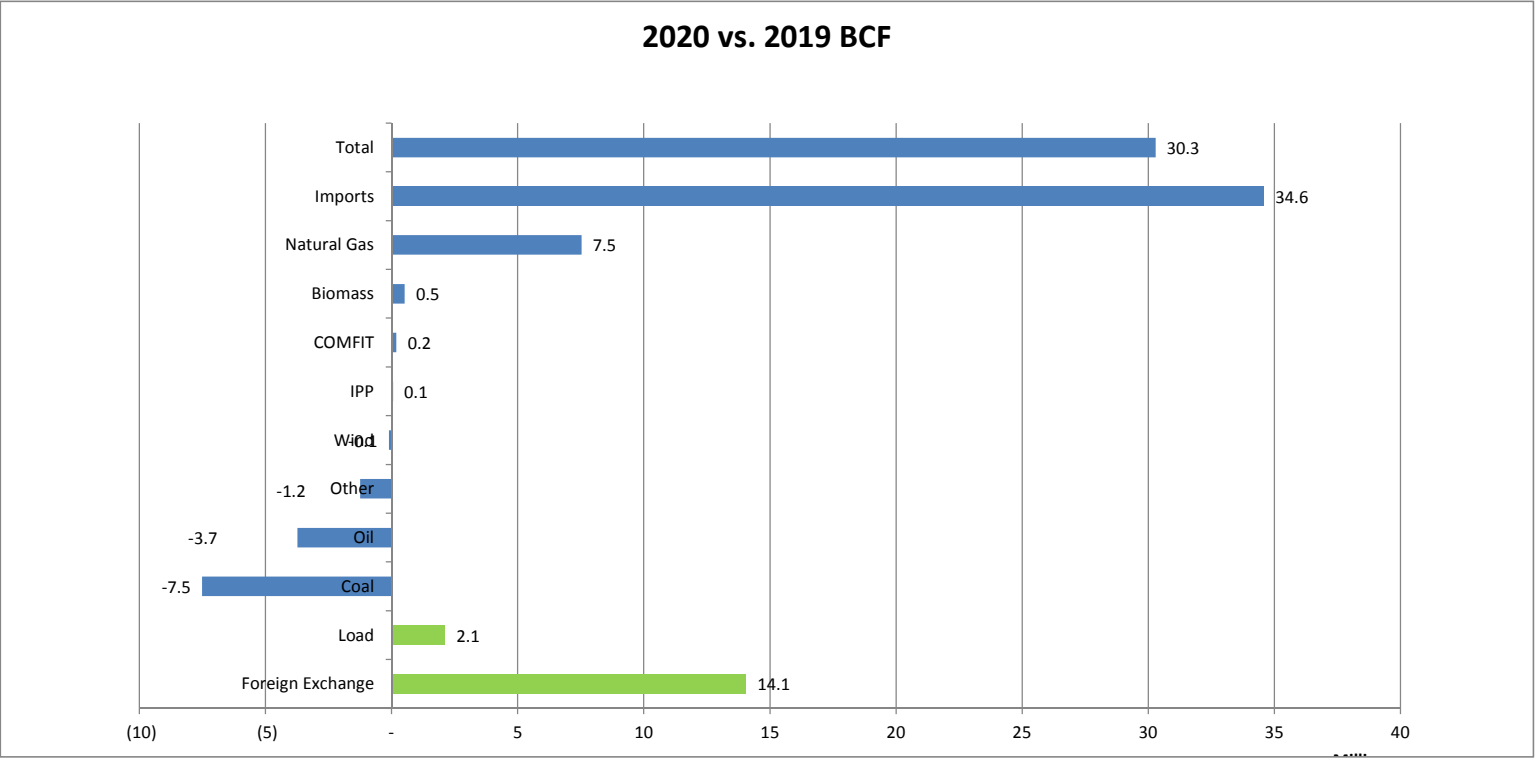
2

3 (ii) The data used to generate Attachment 2 come from the 2019 fuel deck provided in
4 NS Power's 2017-2019 Fuel Stability Plan as Appendix A OE-01A Confidential
5 Attachment 3 and the 2020 Fuel Deck provided as CA IR-7 Confidential
6 Attachment 3.

		2019 BCF	2018 BCF	Variance
Load (MWh)		17,861.00		
	\$/MWh	60.17		1,074,758.84
Solid Fuel	mmBtu	54,297,957	62,075,757	
	\$	\$ 166,220,475	\$ 181,788,951	\$ (15,568,476)
Natural Gas	mmBtu	3,178,361	2,133,796	
	\$	\$ 20,422,432	\$ 14,143,843	\$ 6,278,589
	\$	\$ -	\$ -	\$ -
Biomass	mmBtu	4,188,275	4,188,305	
	\$	\$ 28,183,040	\$ 27,668,167	\$ 514,873
HFO	mmBtu	1,594,249	1,812,482	
	\$	\$ 13,621,119	\$ 15,033,725	\$ (1,412,606)
	\$/mmBtu	\$ 8.544	\$ 8.295	
Furnace Oil	mmBtu	124,061	137,028	
	\$	\$ 1,928,190	\$ 1,955,467	\$ (27,277)
Diesel	mmBtu	2,188	20,622	
	\$	\$ 31,885	\$ 296,072	\$ (264,187)
Additives	\$	\$ 4,125,066	\$ 4,172,314	\$ (47,248)
Hg Additives	\$	\$ 9,317,940	\$ 10,676,867	\$ (1,358,927)
Imports	MWh	1,016,947	685,720	
	\$	\$ 41,965,537	\$ 24,739,450	\$ 17,226,087
Wind	MWh	1,099,821	1,100,591	
	\$	\$ 81,290,352	\$ 80,668,502	\$ 621,849
IPPs	MWh	116,457	115,026	
	\$	\$ 32,980,178	\$ 32,714,657	\$ 265,521
COMFIT	MWh	716,290	716,284	
	\$	\$ 109,905,565	\$ 109,715,341	\$ 190,224
Adjustments	\$	\$ 7,641,284	\$ 6,548,738	\$ 1,092,546
Maritime Link	MWh	1,169,835	829,459	
	\$	\$ 164,000,000	\$ 162,000,000	\$ 2,000,000
		\$ 681,635,765	\$ 672,125,267	\$ 9,510,968
Foreign Exchange				\$ 10,372,522
Load				\$ 1,074,759 1,074,758.84
Solid Fuel				\$ (16,974,651) \$ (16,974,651)
Oil				\$ (1,704,070) \$ (1,704,070)
COMFIT				\$ 190,224 \$ 190,224
IPP				\$ 265,521 \$ 265,521
Biomass				\$ 514,873 \$ 514,873
Wind				\$ 621,849 \$ 621,849
Other				\$ 1,092,546 \$ 1,092,546
Maritime Link				\$ 2,000,000 \$ 2,000,000
Natural Gas				\$ 6,278,540 \$ 6,278,589
Imports				\$ 17,226,087 \$ 17,226,087
Total				\$ 9,510,968



		Total	2020 Strat Plan	Variance
Load Increase		33,922.00	\$/MWh 62.66	2,125,552.52
Solid Fuel	mmBtu	48,743,433	54,297,957	
	\$	\$ 159,195,259	\$ 166,220,475	\$ (7,025,216)
Natural Gas	mmBtu	4,110,151	3,178,188	
	\$	\$ 27,949,648	\$ 20,422,432	\$ 7,527,216
Natural Gas Hedges	\$	\$ -	\$ -	\$ -
Biomass	mmBtu	4,187,503	4,188,275	
	\$	\$ 28,703,454	\$ 28,183,040	\$ 520,414
HFO	mmBtu	1,105,197	1,594,238	
	\$	\$ 9,868,750	\$ 13,621,119	\$ (3,752,369)
Furnace Oil	mmBtu	112,628	124,246	
	\$	\$ 1,972,589	\$ 1,930,863	\$ 41,726
Diesel	mmBtu	486	2,188	
	\$	\$ 8,768	\$ 31,885	\$ (23,117)
Additives	\$	\$ 4,085,979	\$ 4,125,065	\$ (39,086)
Hg Additives	\$	\$ 8,868,094	\$ 9,317,947	\$ (449,853)
Imports	MWh	1,578,513	1,016,947	
	\$	\$ 76,566,454	\$ 41,965,560	\$ 34,600,894
Wind	MWh	1,098,991	1,099,821	
	\$	\$ 81,180,452	\$ 81,290,352	\$ (109,899)
IPP's	MWh	115,651	116,457	
	\$	\$ 33,038,066	\$ 32,980,178	\$ 57,888
COMFIT	MWh	716,290	716,290	
	\$	\$ 110,095,825	\$ 109,905,565	\$ 190,260
Adjustments	\$	\$ 6,394,075	\$ 7,641,284	\$ (1,247,209)
Maritime Link	MWh	1,171,305	1,169,835	
	\$	\$ 164,000,000	\$ 164,000,000	\$ -
		\$ 711,927,413	\$ 681,635,765	\$ 30,291,649
Foreign Exchange				14,059,288.60
Load				2,125,552.52
Coal				\$ (7,514,155)
Oil				\$ (3,733,760)
Other				\$ (1,247,209)
Wind				\$ (109,899)
IPP				\$ 57,888
COMFIT				\$ 190,260
Biomass				\$ 520,414
Natural Gas				\$ 7,527,216
Imports				\$ 34,600,894
Total				\$ 30,291,649



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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)
NSPI Responses to Consumer Advocate Information Requests

CONFIDENTIAL (Attachment Only)

Request IR-11:

Reference p. 35, Figure 10.

(a) Please provide a copy of the electronic spreadsheet file, with all cell formulas and file linkages intact, relied on to generate Figure 10. Please provide copies of all linked spreadsheet files.

(b) Please provide copies of all workpapers, including electronic spreadsheets with cell formulas and file linkages intact, relied on to derive Figure 10.

(c) Please provide a version of Figure 10 which includes all comparable data for 2020.

(i) Please provide a copy of the electronic spreadsheet file, with all cell formulas and file linkages intact, relied on to generate the version of Figure 10 which includes comparable data for 2020. Please provide copies of all linked spreadsheet files.

(ii) Please provide copies of all workpapers, including electronic spreadsheets with cell formulas and file linkages intact, relied on to derive the comparable data for 2020.

Response IR-11:

(a) Please refer to Confidential Attachment 1 which has also been updated to include comparable data for 2020 in response to (c).

(b) The data used to generate Figure 10 are the 2016 BCF Compliance and 2017 to 2019 fuel decks provided in NS Power's 2017-2019 Fuel Stability Plan as Appendix A OE-01B Confidential Attachment 1, Appendix A OE-01A Confidential Attachment 1, Appendix

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)

NSPI Responses to Consumer Advocate Information Requests

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- 1 OE-01A Confidential Attachment 2, and Appendix A OE-01A Confidential Attachment
- 2 3. The 2020 Forecast fuel deck is contained in CA IR-7 Confidential Attachment 3.
- 3
- 4 (c) Please refer to parts (a) and (b).

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CA IR-11 Attachment 1 has been removed due to confidentiality.

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)
NSPI Responses to Consumer Advocate Information Requests

CONFIDENTIAL (Attachment Only)

Request IR-12:

Reference pp. 36-38, Figure 11.

(a) Please provide a copy of the electronic spreadsheet file or files, with all cell formulas and file linkages intact, relied on to generate Figure 11 for each year from 2016 through 2019. Please provide copies of all linked spreadsheet files.

(b) Please provide copies of all workpapers, including electronic spreadsheets with cell formulas and file linkages intact, relied on to derive Figure 11 for each year from 2016 through 2019.

(c) Please provide a version of Figure 11 for the year 2020.

(i) Please provide a copy of the electronic spreadsheet file, with all cell formulas and file linkages intact, relied on to generate the 2020 version of Figure 11. Please provide copies of all linked spreadsheet files.

(ii) Please provide copies of all workpapers, including electronic spreadsheets with cell formulas and file linkages intact, relied on to derive the 2020 version of Figure 11.

Response IR-12:

(a) Please refer to Confidential Attachment 1 for Figure 11 which has been updated to include comparable data for 2020 in response to (c).

(b) The data used to generate Attachment 1 come from the 2016 BCF Compliance forecast fuel deck, provided in NS Power's 2017-2019 Fuel Stability Plan as Appendix A OE-01B Confidential Attachment 1, the 2017 to 2019 BCF forecast fuel decks provided in NS

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)

NSPI Responses to Consumer Advocate Information Requests

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- 1 Power's 2017-2019 Fuel Stability Plan as Appendix A OE-01A Confidential Attachments
2 1-3 and the 2020 BCF Forecast fuel deck, which is contained in CA IR-7 Attachment 3.
3
4 (c) Please see (a) and (b) updated to include comparable data for 2020.

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CA IR-12 Attachment 1 has been removed due to confidentiality.

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)
NSPI Responses to Consumer Advocate Information Requests

CONFIDENTIAL (Attachment Only)

Request IR-13:

Reference pp. 39-40, Figure 12.

- (a) Please provide a copy of the electronic spreadsheet file or files, with all cell formulas and file linkages intact, relied on to generate Figure 12 for each year from 2016 through 2019. Please provide copies of all linked spreadsheet files.
- (b) Please provide copies of all workpapers, including electronic spreadsheets with cell formulas and file linkages intact, relied on to derive Figure 12 for each year from 2016 through 2019.
- (c) Please describe in detail how the Nova Scotia Block was modeled in the Plexos simulation of plant dispatch in the years 2018 through 2020. Please include in this description whether the Nova Scotia Block was modeled as a must-take block purchase with a zero dispatch cost.
- (d) Please describe in detail how the Supplemental Energy was modeled in the Plexos simulation of plant dispatch in the years 2018 through 2020. Please include in this description whether the Supplemental Energy was modeled as a must-take block purchase with a zero dispatch cost.
- (e) Please provide a version of Figure 12 for the year 2020.
- (i) Please provide a copy of the electronic spreadsheet file, with all cell formulas and file linkages intact, relied on to generate the 2020 version of Figure 12. Please provide copies of all linked spreadsheet files.

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)
NSPI Responses to Consumer Advocate Information Requests

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1 (ii) **Please provide copies of all workpapers, including electronic spreadsheets**
2 **with cell formulas and file linkages intact, relied on to derive the 2020 version**
3 **of Figure 12.**

4
5 Response IR-13:

6
7 (a) Please refer to Confidential Attachment 1 for Figure 12 updated to include comparable
8 data for 2020.

9
10 (b) The data used to generate Confidential Attachment 1 is from the 2016 to 2019 fuel decks
11 provided in NS Power's Application as Appendix A OE-01B Confidential Attachment 1
12 and Appendix A OE-01A Confidential Attachments 1 to 3. The 2020 Forecast fuel deck
13 is contained in CA IR-7 Confidential Attachment 3.

14
15 (c) The Maritime Link Nova Scotia Block is the portion of energy assumed to be available
16 on-peak and in-service starting April 1, 2018. The energy is modeled as a 153 MW
17 purchase available 7 days a week for 16 hours a day (7AM to 11PM) which results in an
18 annual energy of 894 GWh per year. The model does have the ability to vary the hourly
19 dispatch by plus or minus 40 MW (113 MW to 193 MW) for load following purposes
20 while still maintaining the annual total energy. The block is dispatched at zero cost and
21 is considered must-take energy.

22
23 (d) The Maritime Link Supplemental Energy is the portion of energy assumed to be available
24 off-peak in winter months (November to March) for the first five years. Although the
25 Maritime Link energy is assumed in-service starting April 1, 2018, energy from the
26 Supplemental Block is forecast to begin to flow November 1, 2018. The energy is
27 modeled as a 223 MW purchase available 7 days a week for 8 hours a day (11PM to
28 7AM) which results in an annual energy of 269 GWh per year. The model does have the
29 ability to vary the hourly dispatch by plus or minus 40 MW (183 MW to 263 MW) for

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)

NSPI Responses to Consumer Advocate Information Requests

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- 1 load following purposes while still maintaining the annual total energy. The block is
2 dispatched at zero cost and is considered must-take energy.
3
4 (e) Please see responses to (a) and (b).

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CA IR-13 Attachment 1 has been removed due to confidentiality.

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)
NSPI Responses to Consumer Advocate Information Requests

CONFIDENTIAL (Attachment Only)

Request IR-14:

Reference p. 47, Figure 17.

(a) Please provide a copy of the electronic spreadsheet file, with all cell formulas and file linkages intact, relied on to generate Figure 17. Please provide copies of all linked spreadsheet files.

(b) Please provide copies of all workpapers, including electronic spreadsheets with cell formulas and file linkages intact, relied on to derive Figure 17.

(c) Please provide a version of Figure 17 which includes the forecasted gas price for 2020.

(i) Please provide a copy of the electronic spreadsheet file, with all cell formulas and file linkages intact, relied on to generate the version of Figure 17 which includes the forecasted gas price for 2020. Please provide copies of all linked spreadsheet files.

(ii) Please provide copies of all workpapers, including electronic spreadsheets with cell formulas and file linkages intact, relied on to derive the forecasted gas price for 2020.

Response IR-14:

(a) Please refer to Confidential Attachment 1.

(b) Please refer to Liberty IR-2 Confidential Attachment 1.

(c) Please refer to Confidential Attachment 1 and CA IR-7 Confidential Attachment 3.

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CA IR-14 Attachment 1 has been removed due to confidentiality.

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)
NSPI Responses to Consumer Advocate Information Requests

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1 **Request IR-15:**

2
3 **Reference p. 51, Figure 20.**

4
5 (a) **Please provide an electronic spreadsheet version, with all cell formulas and file**
6 **linkages intact, of Figure 20 which includes all comparable data for 2020. Please**
7 **provide copies of all linked spreadsheet files.**

8
9 (b) **Please provide copies of all workpapers, including electronic spreadsheets with cell**
10 **formulas and file linkages intact, relied on to derive the version of Figure 20 which**
11 **includes comparable data for 2020.**

12
13 **Response IR-15:**

14
15 (a-b) **There is no Excel file for Figure 20 as the summary table was created in Word. Please**
16 **refer to Appendix A OE-01A Confidential Attachments 1 to 3 (tab 28) for the source data**
17 **for this table. Please refer to CA IR-7 Confidential Attachment 3 (tab 28) for forecast**
18 **2020 biomass fuel costs and solid fuel generation. The Fuel Cost (\$/MWh) is calculated**
19 **by dividing the biomass cost by the biomass solid fuel generation.**

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)

NSPI Responses to Consumer Advocate Information Requests

REDACTED

1 **Request IR-16:**

2
3 **Reference p. 52, Figure 21.**

4
5 **(a) Please provide an electronic spreadsheet version, with all cell formulas and file**
6 **linkages intact, of Figure 21 which includes all comparable data for 2020. Please**
7 **provide copies of all linked spreadsheet files.**

8
9 **(b) Please provide copies of all workpapers, including electronic spreadsheets with cell**
10 **formulas and file linkages intact, relied on to derive the version of Figure 21 which**
11 **includes comparable data for 2020.**

12
13 **Response IR-16:**

14
15 **(a-b) There is no Excel file for Figure 21 as the summary table was created in Word. Please**
16 **refer to Appendix A OP-08 Confidential Attachment 1 for the source data for this table.**
17 **Please refer to CA IR-7 Confidential Attachment 3 (tab 9) for forecast 2020 renewable**
18 **generation. There is no expected change in IPP Wind or IPP Other capacity for 2020 (it**
19 **will remain at [REDACTED] MW).**

REDACTED (CONFIDENTIAL INFORMATION REMOVED)

2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)

NSPI Responses to Consumer Advocate Information Requests

NON-CONFIDENTIAL

Request IR-17:

Reference p. 53, Figure 22.

(a) Please provide an electronic spreadsheet version, with all cell formulas and file linkages intact, of Figure 22 which includes all comparable data for 2020. Please provide copies of all linked spreadsheet files.

(b) Please provide copies of all workpapers, including electronic spreadsheets with cell formulas and file linkages intact, relied on to derive the version of Figure 22 which includes comparable data for 2020.

Response IR-17:

(a) There was an error in COMFIT capacity (2017-2019) in Figure 22. The Generation and percentages were not affected. A revised table is below:

Figure 1 – COMFIT Forecast 2017 – 2019 (REVISED)

	2017		2018		2019	
	Capacity (MW)	Generation (GWh)	Capacity (MW)	Generation (GWh)	Capacity (MW)	Generation (GWh)
COMFIT	173.6	636	179.7	716	179.7	716
% Fuel Cost	17.5%		16.3%		16.1%	
% Generation	5.6%		6.3%		6.3%	

There is no Excel file for Figure 22 as the summary table was created in Word. Please refer to Appendix A OP-08 Confidential Attachment 1 for the source data for this table. Please refer to CA IR-7 Confidential Attachment 3 (tab 9) for forecast 2020 renewable generation. There is no expected change in COMFIT capacity for 2020 (the forecast remains at 179.7 MW).

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)

NSPI Responses to Consumer Advocate Information Requests

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- 1 (b) Please refer to Attachment 1 for the Excel file for the calculation of the percent Fuel Cost
2 and percent Generation values in Figure 22. Data for 2020 have been added to this table.

COMFIT

	2017	2018	2019	2020
% of Costs	17.5%	16.3%	16.1%	15.5%
% of Generation	5.6%	6.3%	6.3%	6.3%

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)
NSPI Responses to Consumer Advocate Information Requests

NON-CONFIDENTIAL

1 **Request IR-18:**

2
3 **Reference p. 55, ll. 15-24.**

4
5 **(a) Please provide in an electronic spreadsheet, with all cell formulas and file linkages**
6 **intact:**

7
8 **(i) NS Power's calculation of the annual RES energy requirement in each year**
9 **from 2016 through 2020.**

10
11 **(ii) NS Power's forecast for the years 2016 through 2020 of annual generation**
12 **from each NS Power-owned, IPP, and COMFIT renewable asset.**

13
14 **(iii) NS Power's calculation of the annual renewable generation in excess of the**
15 **annual RES energy requirement in each year from 2016 through 2020.**

16
17 **(b) Please provide copies of all linked spreadsheet files.**

18
19 **Response IR-18:**

20
21 **(a) (i) Please refer to Attachment 1. This calculation does not include the NS Block of**
22 **the Maritime Link energy as renewable energy in 2018 and 2019.**

23
24 **(ii) Please refer to Appendix A OE-01B Confidential Attachment 1 (tab 9) for 2016**
25 **BCF Compliance forecast, Appendix A OE-01A Confidential Attachments 1 to 3**
26 **(tab 9) for 2017-2019 BCF Forecasts and to CA IR-7 Confidential Attachment 3**
27 **(tab 9) for 2020.**

28
29 **(iii) Please refer to Attachment 1.**

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)

NSPI Responses to Consumer Advocate Information Requests

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- 1 (b) Renewable Generation information is sourced from Appendix A OE-01B Confidential
2 Attachment 1 for the 2016 BCF Compliance forecast, Appendix A OE-01A Confidential
3 Attachments 1 to 3 for the 2017-2019 BCF forecasts and CA IR-7 Confidential
4 Attachment 3 for 2020 forecast.

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Fuel Stability Plan CA IR-8 Attachment 1 Page 1 of 1

Year	2016	2017	2018	2019	2020
Renewables in MWh	3,281,880	3,356,852	3,428,881	3,449,009	4,618,339
Total Electric Sales in MWh	10,437,653	10,547,372	10,588,904	10,602,482	10,639,541
Target RES MWh	2,609,413	2,636,843	2,647,226	2,650,620	4,255,816
Target RES %	25%	25%	25%	25%	40%
Forecasted RES %	31.4%	31.8%	32.4%	32.5%	43.4%
Forecasted Excess Renewable Generation in MWh	672,467	720,009	781,655	798,389	362,523

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)
NSPI Responses to Consumer Advocate Information Requests

NON-CONFIDENTIAL

1 **Request IR-19:**

2
3 **Reference p. 56, ll. 2-4.**

4
5 **Please explain and quantify how the Maritime Link transmission projects affect NS**
6 **Power's ability to import energy from New Brunswick, and how that ability was modeled**
7 **in the Application.**

8
9 **Response IR-19:**

10
11 The Maritime Link transmission projects are required to support a Firm point to point
12 transmission reservation from Nova Scotia to the New Brunswick border (export). There are no
13 Maritime Link transmission projects on the New Brunswick side of the border. Transmission
14 capability associated with power imported from New Brunswick is primarily limited by
15 transmission restrictions within New Brunswick, and is therefore not affected by Maritime Link
16 transmission projects.

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)

NSPI Responses to Consumer Advocate Information Requests

CONFIDENTIAL (Attachment Only)

1 **Request IR-20:**

2
3 **Reference p. 56, Figure 23.**

4
5 **(a) Please provide an electronic spreadsheet version, with all cell formulas and file**
6 **linkages intact, of Figure 23 which includes all comparable data for 2020. Please**
7 **provide copies of all linked spreadsheet files.**

8
9 **(b) Please provide copies of all workpapers, including electronic spreadsheets with cell**
10 **formulas and file linkages intact, relied on to derive the version of Figure 23 which**
11 **includes comparable data for 2020.**

12
13 **Response IR-20:**

14
15 **(a-b) Please refer to Appendix A OE-01A Confidential Attachments 1 to 3 for the data used to**
16 **develop Figure 23 in the Application. An update to Figure 23 that includes data for 2020**
17 **is provided as Confidential Attachment 2. The data used to update this figure have also**
18 **been provided in CA IR-7 Confidential Attachment 3.**

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CA IR-20 Attachment 1 has been removed due to confidentiality.

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)
NSPI Responses to Consumer Advocate Information Requests

CONFIDENTIAL (Attachment Only)

1 **Request IR-21:**

2
3 **Reference p. 59, Figure 25.**

4
5 (a) **Please provide an electronic spreadsheet version, with all cell formulas and file**
6 **linkages intact, of Figure 25 which includes all comparable data for 2020. Please**
7 **provide copies of all linked spreadsheet files.**

8
9 (b) **Please provide copies of all workpapers, including electronic spreadsheets with cell**
10 **formulas and file linkages intact, relied on to derive the version of Figure 25 which**
11 **includes comparable data for 2020.**

12
13 **Response IR-21:**

14
15 (a) **Please refer to Confidential Attachment 1.**

16
17 (b) **Please refer to Appendix A OE-01A Confidential Attachments 1 to 3 of the Company's**
18 **Application for the 2017 to 2019 Total Fuel and Purchased Power Costs and CA IR-7**
19 **Confidential Attachment 3 for the 2020 Total Fuel and Purchased Power Costs.**

20
21 **Please refer to Fuel Stability Filing Partially Confidential Appendix G for the 2017 to**
22 **2019 Fuel and Purchased Power Costs allocation between Above- and Below-the-Line**
23 **customer classes. Please refer to CA IR-2 Partially Confidential Attachment 2 for the**
24 **2020 Fuel and Purchased Power Costs allocation between Above- and Below-the-Line**
25 **customer classes.**

REDACTED (CONFIDENTIAL INFORMATION REMOVED)

CA IR-21 Attachment 1 has been removed due to confidentiality.

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)
NSPI Responses to Consumer Advocate Information Requests

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Request IR-22:

Reference p. 62, Figure 26.

Please provide a version of Figure 26 which includes all comparable data for 2020.

Response IR-22:

Energy (GWH)	2015 Actuals	2016 BCF Forecast	2017 Forecast	2018 Forecast	2019 Forecast	2020 Forecast
Residential	4,484	4,485	4,509	4,549	4,583	4,629
Commercial	3,134	3,163	3,103	3,088	3,077	3,079
Industrial	2,457	2,498	2,605	2,622	2,623	2,619
Other	305	289	282	280	273	262
Losses	718	759	736	721	726	722
Net System Requirement	11,098	11,195	11,235	11,260	11,281	11,312

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)
NSPI Responses to Consumer Advocate Information Requests

NON-CONFIDENTIAL

1 **Request IR-23:**

2
3 **Reference p. 73, Figure 28.**

4
5 (a) **Please provide a version of Figure 28 which includes comparable data for 2020.**

6
7 (b) **Please provide documentation and workpapers supporting each cost element of the**
8 **Maritime Link Anticipated Assessment in Figure 28 for each year from 2018**
9 **through 2020. The response should also identify all assumptions used in formulating**
10 **the forecasted costs.**

11
12 (c) **Please provide calculations supporting “Equity Financing Costs” for each year from**
13 **2018 through 2020. The response should verify that the equity financing costs are**
14 **consistent with the inputs described on page 76 and should provide forecasted**
15 **balance sheets supporting the balances of equity on which the Equity Financing**
16 **Costs are based.**

17
18 **Response IR-23:**

19
20 (a) **Please refer to NSUARB IR-17(d).**

21
22 (b) **Information supporting each cost element is provided in NSUARB IR-17.**

23
24 (c) **Please refer to NSUARB IR-17(b).**

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NSPI Responses to Consumer Advocate Information Requests

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1 **Request IR-24:**

2
3 **Reference p. 73, line 7.**

4
5 **(a) Please provide NS Power's current estimate annual revenue requirements for the**
6 **years 2017 to 2020 for:**

7
8 **(i) Maritime Link-related NS Power transmission investments.**

9
10 **(ii) The forecast offset from OATT revenues for wheeling of power from the**
11 **Maritime Link to New Brunswick.**

12
13 **(b) Please provide copies of all workpapers, including electronic spreadsheets with cell**
14 **formulas and file linkages intact, relied on to derive the estimate of annual revenue**
15 **requirements for:**

16
17 **(i) Maritime Link-related NS Power transmission investments.**

18
19 **(ii) The forecast offset from OATT revenues for wheeling of power from the**
20 **Maritime Link to New Brunswick.**

21
22 **Response IR-24:**

23
24 **(a-b) The Company has not performed the requested analysis as part of this Application.**

25
26 **(i) There are no FAM-related revenue requirements related to the Maritime Link**
27 **transmission projects. Since these projects fall outside of the FAM, the Company**
28 **has not forecast the specific revenue requirement for these projects as part of this**
29 **Application. The total forecast capital expenditure for these four projects is**
30 **provided in the table below**

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	Current estimate
43324 L6513 Rebuild Line	\$22,067,148
43678 Strait Crossing L8004/L7005	\$10,767,280
45066 Upgrade L6511 / L7019	\$3,957,530
45067 Onslow Node Swap	\$3,750,474

- (ii) OATT revenues are not part of the FAM as they applied to the operation and maintenance of the transmission system. However, the current forecast for flow through energy in the Application is as follows:

Year	On-Peak	Off-Peak
2018	834GWh	88GWh
2019	738GWh	82GWh

Tariff revenues related to these energy forecasts using the Monthly Proxy Rate in the NS Transmission Utilization Agreement (\$4.91/MWh) are:

Year	Forecasted OATT revenues related to ML flow-through energy
2018	\$4.5M
2019	\$4.0M

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)
NSPI Responses to Consumer Advocate Information Requests

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1 **Request IR-25:**

2
3 **Reference p. 77, Figure 30.**

4
5 (a) **Please provide a copy of the electronic spreadsheet file, with all cell formulas and**
6 **file linkages intact, relied on to generate Figure 30. Please provide copies of all**
7 **linked spreadsheet files.**

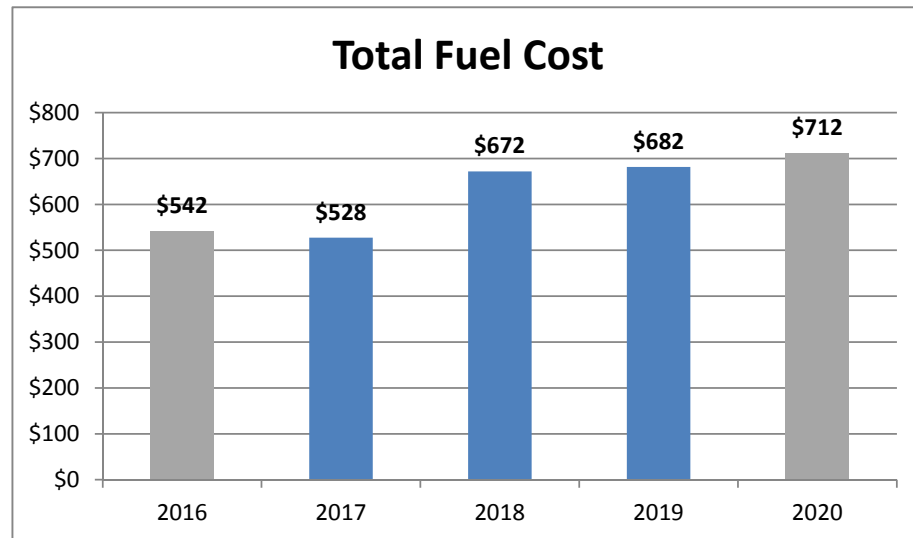
8
9 (b) **Please provide copies of all workpapers, including electronic spreadsheets with cell**
10 **formulas and file linkages intact, relied on to derive the annual fuel costs for the**
11 **years 2016 through 2020 shown in Figure 30.**

12
13 **Response IR-25:**

14
15 (a) **Please refer to Attachment 1.**

16
17 (b) **The numbers used to generate Figure 30 are the Total Fuel and Purchased Power amounts**
18 **included in the 2016 BCF Compliance Forecast fuel deck, provided as Appendix A OE-**
19 **01B Confidential Attachment 1, the 2017-2019 BCF Forecast, provided as Appendix A**
20 **OE-01A Confidential Attachments 1 to 3 and the 2020 BCF Forecast, provided as CA**
21 **IR-7 Confidential Attachment 3.**

<i>Year</i>	<i>Total Fuel Cost</i>
2016	\$542
2017	\$528
2018	\$672
2019	\$682
2020	\$712



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1 **Request IR-26:**

2
3 **Reference p. 78, Figure 31.**

4
5 (a) **Please provide a copy of the electronic spreadsheet file, with all cell formulas and**
6 **file linkages intact, relied on to generate Figure 31. Please provide copies of all**
7 **linked spreadsheet files.**

8
9 (b) **Please provide copies of all workpapers, including electronic spreadsheets with cell**
10 **formulas and file linkages intact, relied on to derive the annual fuel costs by**
11 **component for the years 2016 through 2020 shown in Figure 31.**

12
13 **Response IR-26:**

14
15 (a) Please refer to Attachment 1 for Figure 31.

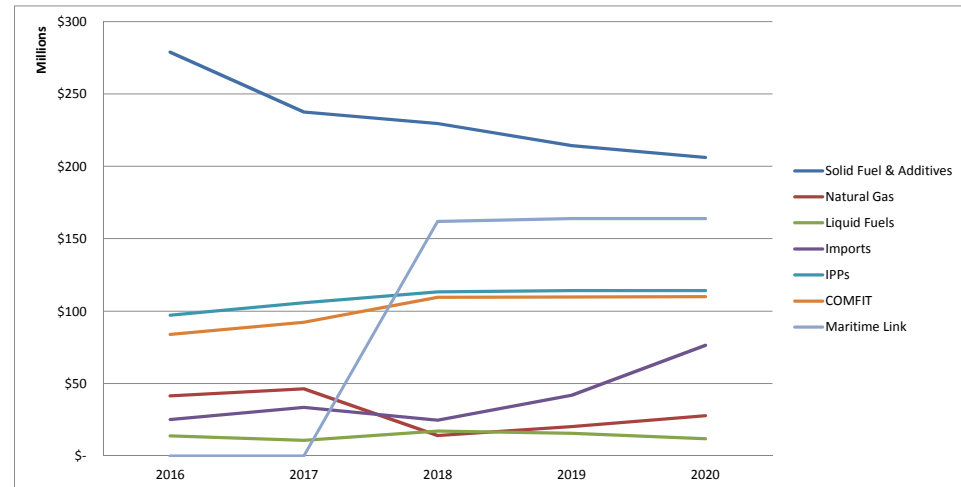
16
17 (b) The data used to generate Figure 31 come from the 2016 BCF Compliance Forecast fuel
18 deck, provided as Appendix A OE-01B Confidential Attachment 1, the 2017 to 2019
19 BCF Forecast fuel decks provided in NS Power's 2017-2019 Fuel Stability Plan as
20 Appendix A OE-01A Confidential Attachments 1-3 and the 2020 BCF Forecast fuel deck
21 provided as CA IR-7 Confidential Attachment 3.

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Fuel Stability Plan CA IR-26 Attachment 1 Page 1 of 1

	2016	2017	2018	2019	2020
Solid Fuel & Additives	\$ 278,948,895	\$ 237,576,236	\$ 229,788,129	\$ 214,404,895	\$ 206,158,623
Natural Gas	\$ 41,639,639	\$ 46,449,606	\$ 14,143,843	\$ 20,422,432	\$ 27,949,648
Liquid Fuels	\$ 13,861,969	\$ 10,833,644	\$ 17,288,386	\$ 15,583,867	\$ 11,850,107
Imports	\$ 25,270,791	\$ 33,493,985	\$ 24,739,489	\$ 41,965,537	\$ 76,566,454
IPPs	\$ 97,232,936	\$ 105,813,927	\$ 113,383,159	\$ 114,270,530	\$ 114,218,518
COMFIT	\$ 84,010,640	\$ 92,312,638	\$ 109,715,341	\$ 109,905,565	\$ 110,095,825
Maritime Link	\$ -	\$ -	\$ 162,000,000	\$ 164,000,000	\$ 164,000,000

Solid Fuel includes Biomass
Liquid Fuels is HFO, LFO, Diesel



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1 **Request IR-27:**

2
3 **Reference p. 79, ll. 1-3.**

4
5 (a) **Please provide copies of all workpapers, including electronic spreadsheets with cell**
6 **formulas and file linkages intact, relied on to derive the finding that each 0.1**
7 **percentage point change to the 1.3% average annual increase translates into an**
8 **opposite change of 0.9 percentage points in the forecasted rate change for 2020.**

9
10 (b) **Please provide an electronic spreadsheet that would allow the Consumer Advocate**
11 **to determine the impact of a change to the average annual increase for the**
12 **residential class on the forecasted residential rate change for 2020.**

13
14 **Response IR-27:**

15
16 (a-b) **Please refer to IG IR-25.**

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)
NSPI Responses to Consumer Advocate Information Requests

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1 **Request IR-28:**

2
3 **Reference p. 91, ll. 22-25.**

4
5 **(a) Please provide NS Power's current estimate of the breakdown of the monetized**
6 **benefits of the Maritime Link, including at least:**

7
8 **(i) The avoided costs of wind development or other renewables.**

9
10 **(ii) The avoided costs of wind-related transmission or other integration costs.**

11
12 **(iii) The avoided costs of gas-fired generation.**

13
14 **(iv) The annual savings from purchases of economy energy facilitated by the**
15 **Maritime Link.**

16
17 **(b) Please identify and explain the differences between NS Power's current estimate of**
18 **the benefits of the Maritime Link and NS Power's last set of estimates in the**
19 **Maritime Link proceeding, Matter No. 5419.**

20
21 **(i) If the forecast in this proceeding includes lower take of Maritime Link**
22 **surplus energy than forecast in Matter No. 5419, please explain why,**
23 **including the underlying price changes that driven the change in the**
24 **projections.**

25
26 **(c) Please explain how each of the costs avoided by the Maritime Link would have been**
27 **allocated among classes, if NS Power had undertaken the alternative supply plan.**

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)

NSPI Responses to Consumer Advocate Information Requests

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1 Response IR-28:

2
3 (a-c) Page 91, lines 22-25 of the Application describe the Cost of Service treatment of the
4 Maritime Link assessment. The requested analysis was not conducted for the purpose of
5 the Application.

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)
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Request IR-29:

Reference Appendix D, pp. 1-2.

(a) Please explain in detail how it was determined that increasing the type and volume of hedges to the indicated percentage of forecast consumption was reasonable. Please provide copies of any reports by NS Power or its consultants that assessed the reduction in fuel-cost variability from the proposed hedge program and determined that the benefits from increased rate stability justified the costs of the program.

(b) Please explain in detail how it was determined that the proposed hedge program would offer greater rate stability than the current hedge strategy. Please provide copies of any reports by NS Power or its consultants that compare the performance of the proposed hedge program against the current hedge strategy.

Response IR-29:

(a) The degree of price stability is directly related to the proportion of fuel hedged. An unhedged portfolio would be completely exposed to fluctuations in market prices, and as the amount of fuel hedged increases, the proportion of fuel costs exposed to the market decreases. Maximum price stability is achieved when the proportion of fuel costs hedged reaches 75-100% of forecast fuel requirements. Due to the highly variable nature of fuel prices, in order to provide stable and predictable rates during the Rate Stability Period, the Company must implement a robust hedging and risk management program to manage this variability. Maximizing the level of fuel cost stability through hedging 75-100% of forecast fuel requirements will provide the greatest degree of fuel cost stability to customers. Presently, the forward curves for many fuels exhibit a very low amount of contango during the Rate Stability Period, i.e. there is only a small amount of escalation in forward prices. This will allow NS Power to hedge commodity costs for the entire period without paying a significant premium for longer dated futures, providing further

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)

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1 stability for customers. In its hedging activity, NS Power will ensure that only reasonable
2 and prudent costs are incurred in support of the objective of fuel cost and rate stability.

3
4 (b) Compared to NS Power's current hedging program, the proposed Fuel Hedging Plan
5 increases the proportion of forecast fuel requirements to be hedged. Maximizing the
6 level of fuel cost stability through hedging 75-100% of forecast fuel requirements will
7 provide a greater degree of fuel cost stability to customers by reducing or offsetting
8 exposure to variable market prices for fuel.

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)

NSPI Responses to Consumer Advocate Information Requests

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1 **Request IR-30:**

2
3 **Reference Appendix D, p. 2. Please explain in detail how cost-effectiveness of the proposed**
4 **hedging program will be determined. As part of this explanation:**

5
6 (a) **Please describe in detail all of the costs associated with the proposed hedge program.**

7
8 (b) **Please describe in detail the metric that will be used to measure the benefits**
9 **associated the proposed hedge program (e.g., reduction in portfolio VaR).**

10
11 (c) **Please describe in detail how costs will be compared to the benefits metric to**
12 **determine cost-effectiveness.**

13
14 **Response IR-30:**

15
16 (a) Brokerage charges are incurred when using a broker to facilitate a hedging transaction.
17 These charges vary, but are typically levied per unit of underlying commodity transacted
18 (e.g., [REDACTED]/MWh or [REDACTED]/MMBtu). NS Power anticipates requiring brokers for some
19 of its hedging activities during the Rate Stability Period.

20
21 Exchange fees are paid when centrally cleared exchange traded contracts are executed.
22 These fees are generally applied on a per contract basis. If posted margin is required,
23 either to an exchange for cleared transactions or to a bilateral counterparty, there are
24 funding costs associated with posting this collateral.

25
26 (b) Value at Risk (VaR) is the primary risk metric that will be used to measure the
27 effectiveness of the hedging program. The magnitude of the reduction in portfolio level
28 VaR will be a key indicator of the effectiveness of the Fuel Hedging Plan.

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)

NSPI Responses to Consumer Advocate Information Requests

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- 1 (c) The expected direct increase in the total fuel and purchase power will be estimated, as
2 well as the expected reduction in portfolio level VaR. Should an increase in fuel costs be
3 expected as a result of executing the hedge, it would only be entered if there is a
4 commensurate decrease in VaR resulting from the hedge. The Company will endeavour
5 to keep an appropriate balance between the dual objectives of affordability and stability is
6 maintained throughout its fuel hedging and procurement activities.

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)

NSPI Responses to Consumer Advocate Information Requests

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1 **Request IR-31:**

2
3 **Reference Appendix D, p. 10.**

4
5 **(a) When will NS Power determine the set parameters to be used in the VaR model?**

6
7 **(b) How will these parameters be compared to the existing VaR model parameters?**

8
9 **Response IR-31:**

10
11 (a) NS Power expects to determine the parameters to be used in the calculation of VaR by
12 the end of Q2 2016.

13
14 (b) As NS Power is currently in the process of implementing new energy trading risk
15 management (ETRM) software (Allegro), the calculation of VaR will be performed in
16 Allegro, whereas the existing VaR calculations are performed in the Excel-based model.
17 The parameters used in the existing model will be reviewed in determining the
18 parameters to be used in Allegro.

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)

NSPI Responses to Consumer Advocate Information Requests

CONFIDENTIAL (Attachment Only)

1 **Request IR-32:**

2
3 **Reference Appendix E, p. 4, ll. 3-4.**

4
5 **(a) Please provide copies of the documents that were provided by NS Power.**

6
7 **(b) Please provide copies or web links to all of the publicly available documents**
8 **reviewed by Mr. Moreno.**

9
10 **Response IR-32:**

11
12 **(a) Mr. Moreno has confirmed that in addition to the Fuel Hedging Plan, he relied upon the**
13 **following documents provided by NS Power in forming his opinion:**

14
15 (i) Natural Gas Hedging Strategy from Concentric Energy Advisors. Please refer to
16 Confidential Attachment 1.

17
18 (ii) 2016 FAM Base Cost of Fuel Application dated August 10, 2015 (M06962).
19 Please refer to Confidential Attachment 2.

20
21 (iii) NS Power Fuel Manual, Revision #8. Please refer to Confidential Attachment 3.

22
23 (iv) Fuel Hedging in Support of Stabilization Plan, September 24, 2015. Please refer
24 to Confidential Attachment 4.

25
26 **(b) Mr. Moreno has confirmed that he relied upon the following publicly available**
27 **documents in forming his opinion:**

28
29 (i) 2015 Electricity Plan Implementation (2015) Act. Please refer to
30 <http://nslegislature.ca/legc/PDFs/annual%20statutes/2015%20Fall/c031.pdf>.

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1

2

(ii) Our Electricity Future, Nova Scotia's Electricity Plan 2015-2040. Please refer to

3

<http://energy.novascotia.ca/sites/default/files/Our-Electricity-Future.pdf>.

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CA IR-32 Attachments 1-4 have been removed due to confidentiality.

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1 **Request IR-33:**

2

3 **Reference Appendix E, p. 4 ll. 19-20.**

4

5 **Please describe in detail each of the uneconomical or unfeasible risks that the proposed**
6 **hedge plan does not address.**

7

8 **Response IR-33:**

9

10 **Please refer to Appendix E, pp. 11-12.**

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NSPI Responses to Consumer Advocate Information Requests

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1 **Request IR-34:**

2
3 **Reference Appendix E, p. 5, at 14.**

4
5 **(a) How does the Plan measure the uncertainty in NS Power's Fuel Costs?**

6
7 **(b) How does the Plan measure the uncertainty in NS Power's Fuel Costs by fuel type?**

8
9 **Response IR-34:**

10
11 **(a)** Value at Risk (or Forecast at Risk as applied in this specific framework) will be the key
12 measure of the uncertainty in NS Power's fuel costs. This measure will be calculated
13 using the Allegro ETRM software.

14
15 **(b)** The process for calculating uncertainty for each fuel type will be the same as for the
16 aggregated portfolio-level uncertainty as described in (a) above.

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1 **Request IR-35:**

2
3 **Reference Appendix E, p. 6, ll. 10-12. Please describe in detail how it will be determined**
4 **whether it is cost-effective to execute a particular hedge to “address variability beyond**
5 **what the operational flexibility allows.”**

6
7 **(a) Please explain in detail how the cost of a particular hedge will be determined.**

8
9 **(b) Will the benefit of a particular hedge be measured as reduction in the portfolio**
10 **VaR? Please explain.**

11
12 **(c) Please explain in detail how the cost of a particular hedge will be compared to the**
13 **benefit to determine cost-effectiveness.**

14
15 **Response IR-35:**

16
17 **(a) Please refer to NSUARB IR-11 (d).**

18
19 **(b-c) The primary benefit of a hedge for NS Power is in its ability to create price stability as**
20 **this is the guiding principle of the Rate Stability Period. The hedge will therefore be**
21 **beneficial if it provides fuel cost stability. The benefit of the hedges is the degree of**
22 **reduction in fuel cost variability relative to an unhedged portfolio. VaR will be used as**
23 **one indicator of the expected level of stability in projected fuel costs.**

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1 **Request IR-36:**

2
3 **Reference Appendix E, p. 7, ll. 13-14.**

4
5 **Please explain why cost-effectiveness is not one of the measures that determine the**
6 **reasonableness of a hedge strategy.**

7
8 **Response IR-36:**

9
10 While not explicitly identified, cost-effectiveness is a measure included in the proposed Fuel
11 Hedging Plan, but its applicability is more directly associated with the selection of the hedging
12 instrument. Please refer to CA IR-35.

13
14 As noted on page 7 of Mr. Moreno's testimony, "the reasonableness of any hedging strategy is
15 framed in terms of three principles: awareness, measurement and decisions making." The
16 reasonableness of the Fuel Hedging Plan is in how hedging contributes to rate stability at a
17 reasonable cost. Measurement incorporates the cost-effectiveness of a hedge strategy as it
18 influences the selection of the instrument.

19
20 Additionally, and as noted on page 8 of Mr. Moreno's testimony, "the measurement principle
21 therefore identifies how relevant a particular risk is, or how it interacts with other risks that may
22 affect the rates to customers." In other words, the measurement principle incorporates the cost
23 effectiveness of the hedge.

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Request IR-37:

Reference Appendix E, p. 13, ll. 1-4.

(a) Please describe in detail the benefits of the proposed plan over the existing NGHS rolling hedging program.

(b) Does a rolling hedging strategy incorporate falling market prices?

(c) How does the proposed Plan reflect falling market prices?

(d) How are costs minimized in a hedging strategy focused on fuel price stability?

Response IR-37:

(a) The benefits of the proposed Fuel Hedging Plan over the existing NGHS program are described on page 12 of Mr. Moreno's testimony. As stated in his testimony "The Plan differs from the NGHS in that it incorporates the exposure of all the elements of the Fuel Costs collectively, not only as individual cost items. It therefore utilizes the operational flexibility to switch fuels within the portfolio as the most economical process to reduce the aggregate risk surrounding the Fuel Costs. It optimizes the fuel portfolio as the preferred hedge, and progressively addresses remaining risk via financial or physical hedges."

(b) In the industry a "rolling hedging strategy" is a term used to describe hedging programs that execute hedges to replace expiring hedge contracts. These hedges could have been placed as a function of some defined logic (e.g. as a function of time, price or risk), or could just be placed by a simple logic of dollar cost averaging. While the NGHS and the proposed Fuel Hedging Plan have elements of a rolling hedging strategy, they are far more comprehensive than what is known in the industry as a rolling hedging strategy. As

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1 it is currently phrased, the question is not clear in that a falling market price is either a
2 feature of the market (for prices that have already expired) or an unknown potential
3 feature of the market.
4

5 (c) The proposed Fuel Hedging Plan addresses market conditions as they evolve. There is
6 potential for upside and downside movement. The proposed Fuel Hedging Plan
7 mandates price stability at a reasonable cost and does not have an explicit assumption that
8 market prices will increase or decrease.
9

10 (d) As noted on page 82 of the NS Power Fuel Stability Plan Application, “while hedging
11 increases the stability and predictability of fuel costs, it does not guarantee the lowest
12 costs are achieved.” The costs of the hedges are minimized by evaluating the impact of
13 each hedge in terms of its expected reduction in overall portfolio risk using Value at Risk
14 and volumetric positions. The hedges will be rebalanced as expected volumes are
15 updated and fuel forecasts change, thereby minimizing overall costs.
16

17 For further details as to how the cost effectiveness of hedges contributes to the hedge
18 strategy please refer to CA IR-35.

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)

NSPI Responses to Consumer Advocate Information Requests

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1 **Request IR-38:**

2

3 **Please provide copies of all electronic spreadsheet files linked to the electronic spreadsheets**

4 **for corrected Appendices F through J.**

5

6 Response IR-38:

7

8 Please refer to CA IR-2.

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)

NSPI Responses to Consumer Advocate Information Requests

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1 **Request IR-39:**

2
3 **Please provide electronic spreadsheet versions, with all cell formulas and file linkages**
4 **intact, of Appendices F through J for the year 2020. Please provide copies of all linked**
5 **spreadsheet files.**

6
7 **Response IR-39:**

8
9 Please refer to CA IR-2.

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)
NSPI Responses to Consumer Advocate Information Requests

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1 **Request IR-40:**

2
3 **Reference p. 73.**

4
5 **Please provide documentation and workpapers supporting each cost element of the**
6 **Maritime Link Anticipated Assessment in Figure 28. The response should also identify all**
7 **assumptions used in formulating the forecasted costs.**

8
9 **Response IR-40:**

10
11 **Information supporting each cost element is provided in NSUARB IR-17.**

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2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset (NSUARB M07348)
NSPI Responses to Consumer Advocate Information Requests

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1 **Request IR-41:**

2
3 **Reference p. 73, Figure 28.**

4
5 **Please provide calculations supporting “Equity Financing Costs.” The response should**
6 **verify that the equity financing costs are consistent with the inputs described on Page 76**
7 **and should provide forecasted balance sheets supporting the balances of equity on which**
8 **the Equity Financing Costs are based.**

9
10 **Response IR-41:**

11
12 **Please refer to NSUARB IR-17(b).**