

NFAT DSM ANALYSIS - MAIN SUBMISSION RATE METHODOLOGY

Development Plan	Plan #	DSM Level	Keyask & Conawapa Capital Cost Scenario	(A) Cumulative Nominal Rate Increases by 2061/62 - Compared to Base	(B) Projected Even-Annual Rate Increases (2015/16 to 2031/32)	(C) Equivalent Even-Annual Rate Increases over the Forecast Period (2014/15 to 2061/62)	(D) Cumulative Nominal Rate Increases as at 2031/32	(E) Cumulative Nominal Rate Increases as at 2061/62	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N) * 20 year Present Value of Consumers Revenue (2031/32 back to 2012/13) in Billions of 2012PV\$	(O) * 50 year Present Value of Consumers Revenue (2061/62 back to 2012/13) in Billions of 2012PV\$	(P) * 50 year Present Value of Consumers Revenue - Compared to Base in Billions of 2012PV\$	
									Net Fixed Assets	Net Debt	Retained Earnings	Debt:Equity Ratio as at 2031/32	Net Fixed Assets	Net Debt	Retained Earnings	Debt:Equity Ratio as at 2061/62				As at 2031/32 in Billions of Nominal Dollars
1	K19 Sales C26 750 MW	14	Base	Reference	-	4.33%	1.42%	114%	96%	\$34.7	\$25.2	\$8.4	75%	\$37.7	\$15.0	\$16.8	47%	\$30.8	\$60.6	-
2	K19 Sales C30 750 MW	14	DSM Level 1	Reference	-4%	4.29%	1.37%	112%	92%	\$36.8	\$26.9	\$9.0	75%	\$38.7	\$15.2	\$17.6	46%	\$30.1	\$58.6	(\$1.9)
3	K19 Sales C31 750 MW	14	DSM Level 2	Reference	-10%	4.27%	1.30%	112%	86%	\$36.9	\$26.9	\$9.0	75%	\$39.1	\$15.4	\$17.8	46%	\$29.3	\$56.5	(\$4.0)
4	K19 Sales C33 750 MW	14	DSM Level 3	Reference	-10%	4.39%	1.31%	116%	87%	\$34.4	\$25.2	\$8.4	75%	\$40.0	\$16.3	\$17.7	48%	\$29.3	\$56.5	(\$4.0)
5	K19 Gas 750 MW	5	Base	Reference	-	3.63%	1.85%	91%	141%	\$25.3	\$18.5	\$6.2	75%	\$33.8	\$15.3	\$13.0	54%	\$29.2	\$61.4	-
6	K19 Gas 750 MW	5	DSM Level 1	Reference	-7%	3.76%	1.79%	95%	135%	\$25.1	\$18.3	\$6.1	75%	\$33.5	\$15.1	\$12.9	54%	\$28.9	\$58.7	(\$2.7)
7	K19 Gas 750 MW	5	DSM Level 2	Reference	-15%	3.74%	1.72%	94%	126%	\$24.7	\$18.1	\$6.0	75%	\$32.7	\$14.6	\$12.7	53%	\$28.2	\$56.2	(\$5.1)
8	K19 Gas 750 MW	5	DSM Level 3	Reference	-19%	4.04%	1.68%	104%	122%	\$24.6	\$18.0	\$6.0	75%	\$32.4	\$14.2	\$12.7	53%	\$28.5	\$55.9	(\$5.5)
9	All Gas	1	Base	Reference	-	3.29%	2.14%	80%	176%	\$20.2	\$14.8	\$4.9	75%	\$31.8	\$15.6	\$11.0	59%	\$28.4	\$62.8	-
10	All Gas	1	DSM Level 1	Reference	-11%	3.40%	2.05%	84%	165%	\$19.3	\$14.2	\$4.7	75%	\$30.4	\$14.5	\$10.7	57%	\$28.1	\$60.0	(\$2.7)
11	All Gas	1	DSM Level 2	Reference	-15%	3.36%	2.02%	82%	161%	\$19.0	\$13.9	\$4.6	75%	\$29.9	\$14.2	\$10.5	57%	\$27.4	\$57.8	(\$5.0)
12	All Gas	1	DSM Level 3	Reference	-19%	3.65%	1.99%	91%	157%	\$18.9	\$13.9	\$4.6	75%	\$29.7	\$14.0	\$10.5	57%	\$27.7	\$57.4	(\$5.4)
13	K19 Sales C26 750 MW	14	Base	High	-	4.81%	1.45%	131%	100%	\$37.3	\$27.2	\$9.1	75%	\$39.0	\$15.3	\$17.9	46%	\$32.0	\$63.1	-
14	K19 Sales C30 750 MW	14	DSM Level 1	High	-3%	4.68%	1.42%	126%	97%	\$39.8	\$29.1	\$9.7	75%	\$40.4	\$15.6	\$18.9	45%	\$31.0	\$61.0	(\$2.0)
15	K19 Sales C31 750 MW	14	DSM Level 2	High	-9%	4.63%	1.35%	125%	91%	\$39.9	\$29.2	\$9.8	75%	\$40.9	\$15.8	\$19.1	45%	\$30.2	\$58.9	(\$4.2)
16	K19 Sales C33 750 MW	14	DSM Level 3	High	-7%	4.72%	1.38%	128%	93%	\$36.8	\$27.0	\$9.0	75%	\$41.9	\$16.9	\$19.0	47%	\$30.0	\$58.9	(\$4.2)
17	K19 Gas 750 MW	5	Base	High	-	3.87%	1.86%	98%	142%	\$26.0	\$19.0	\$6.3	75%	\$34.2	\$15.3	\$13.3	53%	\$29.7	\$62.3	-
18	K19 Gas 750 MW	5	DSM Level 1	High	-7%	4.01%	1.80%	103%	135%	\$25.8	\$18.8	\$6.3	75%	\$33.8	\$15.1	\$13.2	53%	\$29.4	\$59.6	(\$2.7)
19	K19 Gas 750 MW	5	DSM Level 2	High	-15%	3.99%	1.72%	102%	127%	\$25.4	\$18.6	\$6.2	75%	\$33.1	\$14.7	\$13.0	53%	\$28.7	\$57.1	(\$5.2)
20	K19 Gas 750 MW	5	DSM Level 3	High	-19%	4.29%	1.69%	112%	123%	\$25.3	\$18.5	\$6.2	75%	\$32.7	\$14.3	\$12.9	52%	\$29.1	\$56.8	(\$5.5)

\* 2012 Constant dollar Consumers' Revenue discounted at 1.86% real discount rate

NFAT DSM ANALYSIS - ALTERNATIVE RATE METHODOLOGY 1

	Development Plan	Plan #	DSM Level	Keyask & Conawapa Capital Cost Scenario	(A) Cumulative Nominal Rate Increases by 2061/62 - Compared to Base	(B) Year that 1.20 Interest Coverage Ratio is Achieved	(C) Equivalent Even-Annual Rate Increases over the Forecast Period (2014/15 to 2061/62)	(D) Cumulative Nominal Rate Increases as at 2031/32	(E) Cumulative Nominal Rate Increases as at 2061/62	(F) As at 2031/32 in Billions of Nominal Dollars				(J) As at 2061/62 in Billions of Nominal Dollars				(N) * 20 year Present Value of Consumers Revenue (2031/32 back to 2012/13) in Billions of 2012PV\$	(O) * 50 year Present Value of Consumers Revenue (2061/62 back to 2012/13) in Billions of 2012PV\$	(P) * 50 year Present Value of Consumers Revenue - Compared to Base in Billions of 2012PV\$
										(F) Net Fixed Assets	(G) Net Debt	(H) Retained Earnings	(I) Debt:Equity Ratio as at 2031/32	(J) Net Fixed Assets	(K) Net Debt	(L) Retained Earnings	(M) Debt:Equity Ratio as at 2061/62			
21	K19 Sales C26 750 MW	14	Base	Reference	-	2027	1.50%	78%	104%	\$34.7	\$28.2	\$5.4	84%	\$37.7	\$17.0	\$14.7	53%	\$29.5	\$61.0	-
22	K19 Sales C30 750 MW	14	DSM Level 1	Reference	-2%	2027	1.48%	76%	102%	\$36.8	\$30.6	\$5.2	86%	\$38.7	\$17.7	\$15.1	54%	\$28.5	\$59.2	(\$1.8)
23	K19 Sales C31 750 MW	14	DSM Level 2	Reference	-8%	2027	1.42%	70%	96%	\$36.9	\$30.9	\$5.1	86%	\$39.1	\$18.0	\$15.1	54%	\$27.6	\$57.1	(\$3.9)
24	K19 Sales C33 750 MW	14	DSM Level 3	Reference	-6%	2027	1.44%	72%	98%	\$34.4	\$29.3	\$4.3	87%	\$40.0	\$19.0	\$14.9	56%	\$27.5	\$57.1	(\$3.8)
25	K19 Gas 750 MW	5	Base	Reference	-	2025	1.89%	61%	146%	\$25.3	\$20.1	\$4.5	82%	\$33.8	\$16.4	\$11.9	58%	\$28.4	\$61.5	-
26	K19 Gas 750 MW	5	DSM Level 1	Reference	-6%	2026	1.84%	61%	140%	\$25.1	\$20.3	\$4.1	83%	\$33.5	\$16.4	\$11.5	59%	\$27.9	\$58.9	(\$2.6)
27	K19 Gas 750 MW	5	DSM Level 2	Reference	-14%	2027	1.77%	56%	132%	\$24.7	\$20.1	\$4.0	83%	\$32.7	\$15.9	\$11.3	58%	\$27.2	\$56.4	(\$5.1)
28	K19 Gas 750 MW	5	DSM Level 3	Reference	-16%	2027	1.75%	61%	130%	\$24.6	\$20.6	\$3.4	86%	\$32.4	\$16.0	\$10.9	59%	\$27.3	\$56.2	(\$5.3)
29	All Gas	1	Base	Reference	-	2023	2.16%	57%	179%	\$20.2	\$15.9	\$3.8	81%	\$31.8	\$16.3	\$10.2	61%	\$27.8	\$62.8	-
30	All Gas	1	DSM Level 1	Reference	-10%	2024	2.08%	58%	168%	\$19.3	\$15.4	\$3.5	81%	\$30.4	\$15.2	\$9.9	60%	\$27.5	\$60.1	(\$2.7)
31	All Gas	1	DSM Level 2	Reference	-15%	2024	2.04%	54%	164%	\$19.0	\$15.1	\$3.5	81%	\$29.9	\$14.9	\$9.7	60%	\$26.8	\$57.8	(\$5.0)
32	All Gas	1	DSM Level 3	Reference	-18%	2025	2.02%	56%	161%	\$18.9	\$15.4	\$3.1	83%	\$29.7	\$15.0	\$9.5	61%	\$26.9	\$57.5	(\$5.3)
33	K19 Sales C26 750 MW	14	Base	High	-	2032	1.59%	100%	113%	\$37.3	\$32.2	\$4.0	89%	\$39.0	\$18.6	\$14.4	56%	\$29.9	\$63.8	-
34	K19 Sales C30 750 MW	14	DSM Level 1	High	-4%	2028	1.55%	93%	110%	\$39.8	\$34.0	\$4.9	88%	\$40.4	\$18.8	\$15.6	55%	\$29.0	\$61.8	(\$2.1)
35	K19 Sales C31 750 MW	14	DSM Level 2	High	-9%	2027	1.50%	82%	104%	\$39.9	\$34.2	\$4.8	88%	\$40.9	\$19.2	\$15.8	55%	\$28.1	\$59.7	(\$4.2)
36	K19 Sales C33 750 MW	14	DSM Level 3	High	-6%	2028	1.53%	81%	107%	\$36.8	\$32.1	\$3.9	89%	\$41.9	\$20.3	\$15.5	57%	\$27.9	\$59.7	(\$4.2)
37	K19 Gas 750 MW	5	Base	High	-	2026	1.91%	67%	147%	\$26.0	\$21.1	\$4.2	83%	\$34.2	\$16.7	\$11.9	58%	\$28.8	\$62.5	-
38	K19 Gas 750 MW	5	DSM Level 1	High	-5%	2027	1.86%	68%	142%	\$25.8	\$21.4	\$3.7	85%	\$33.8	\$16.8	\$11.4	59%	\$28.3	\$59.9	(\$2.6)
39	K19 Gas 750 MW	5	DSM Level 2	High	-13%	2027	1.79%	62%	134%	\$25.4	\$21.1	\$3.6	85%	\$33.1	\$16.3	\$11.2	59%	\$27.5	\$57.4	(\$5.1)
40	K19 Gas 750 MW	5	DSM Level 3	High	-15%	2028	1.78%	68%	133%	\$25.3	\$21.8	\$2.9	88%	\$32.7	\$16.4	\$10.7	60%	\$27.6	\$57.2	(\$5.3)

\* 2012 Constant dollar Consumers' Revenue discounted at 1.86% real discount rate

NFAT DSM ANALYSIS - ALTERNATIVE RATE METHODOLOGY 2

Development Plan	Plan #	DSM Level	Keyask & Conawapa Capital Cost Scenario	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N) *	(O) *	(P) *	
				Cumulative Nominal Rate Increases by 2061/62 - Compared to Base	Even Annual Rate Increases required to minimize Net Losses between the period as stated below	Equivalent Even-Annual Rate Increases over the Forecast Period (2014/15 to 2061/62)	Cumulative Nominal Rate Increases as at 2031/32	Cumulative Nominal Rate Increases as at 2061/62	Net Fixed Assets	Net Debt	Retained Earnings	Debt:Equity Ratio as at 2031/32	Net Fixed Assets	Net Debt	Retained Earnings	Debt:Equity Ratio as at 2061/62	20 year Present Value of Consumers Revenue (2031/32 back to 2012/13) in Billions of 2012PV\$	50 year Present Value of Consumers Revenue (2061/62 back to 2012/13) in Billions of 2012PV\$	50 year Present Value of Consumers Revenue - Compared to Base in Billions of 2012PV\$	
										As at 2031/32 in Billions of Nominal Dollars			As at 2061/62 in Billions of Nominal Dollars							
<b>2018-2022</b>																				
41	K19 Sales C26 750 MW	14	Base	Reference	-	3.95%	1.50%	78%	104%	\$34.7	\$28.2	\$5.4	84%	\$37.7	\$17.0	\$14.7	53%	\$29.5	\$61.0	-
42	K19 Sales C30 750 MW	14	DSM Level 1	Reference	-2%	4.18%	1.47%	75%	102%	\$36.8	\$30.4	\$5.4	85%	\$38.7	\$17.5	\$15.2	53%	\$28.5	\$59.1	(\$1.8)
43	K19 Sales C31 750 MW	14	DSM Level 2	Reference	-8%	4.32%	1.41%	69%	96%	\$36.9	\$30.6	\$5.3	85%	\$39.1	\$17.8	\$15.3	54%	\$27.7	\$57.0	(\$4.0)
44	K19 Sales C33 750 MW	14	DSM Level 3	Reference	-8%	5.13%	1.41%	68%	96%	\$34.4	\$28.4	\$5.2	85%	\$40.0	\$18.5	\$15.5	54%	\$27.8	\$56.9	(\$4.1)
<b>2016-2022</b>																				
45	K19 Gas 750 MW	5	Base	Reference	-	4.16%	1.89%	60%	145%	\$25.3	\$19.9	\$4.7	81%	\$33.8	\$16.3	\$12.0	57%	\$28.4	\$61.5	-
46	K19 Gas 750 MW	5	DSM Level 1	Reference	-7%	4.54%	1.83%	59%	138%	\$25.1	\$19.7	\$4.7	81%	\$33.5	\$16.0	\$11.9	57%	\$28.1	\$58.8	(\$2.7)
47	K19 Gas 750 MW	5	DSM Level 2	Reference	-15%	4.60%	1.75%	53%	130%	\$24.7	\$19.4	\$4.7	81%	\$32.7	\$15.5	\$11.8	57%	\$27.4	\$56.2	(\$5.2)
48	K19 Gas 750 MW	5	DSM Level 3	Reference	-19%	5.08%	1.72%	54%	126%	\$24.6	\$19.4	\$4.7	81%	\$32.4	\$15.1	\$11.7	56%	\$27.7	\$55.9	(\$5.6)
<b>2016 - 2020</b>																				
49	All Gas	1	Base	Reference	-	4.95%	2.15%	55%	178%	\$20.2	\$15.5	\$4.2	79%	\$31.8	\$16.1	\$10.5	60%	\$27.9	\$62.7	\$0.0
50	All Gas	1	DSM Level 1	Reference	-11%	5.35%	2.07%	55%	167%	\$19.3	\$14.8	\$4.1	78%	\$30.4	\$14.9	\$10.3	59%	\$27.7	\$59.9	(\$2.8)
51	All Gas	1	DSM Level 2	Reference	-16%	5.46%	2.02%	51%	162%	\$19.0	\$14.5	\$4.1	78%	\$29.9	\$14.5	\$10.2	59%	\$26.9	\$57.6	(\$5.1)
52	All Gas	1	DSM Level 3	Reference	-20%	5.94%	2.00%	51%	158%	\$18.9	\$14.4	\$4.1	78%	\$29.7	\$14.3	\$10.2	58%	\$27.2	\$57.2	(\$5.5)
<b>2018-2022</b>																				
53	K19 Sales C26 750 MW	14	Base	High	0%	4.42%	1.56%	95%	110%	\$37.3	\$31.3	\$5.0	86%	\$39.0	\$18.0	\$15.1	54%	\$30.3	\$63.7	-
54	K19 Sales C30 750 MW	14	DSM Level 1	High	-2%	4.62%	1.54%	90%	108%	\$39.8	\$33.4	\$5.5	86%	\$40.4	\$18.4	\$16.0	53%	\$29.2	\$61.6	(\$2.0)
55	K19 Sales C31 750 MW	14	DSM Level 2	High	-8%	4.75%	1.48%	79%	103%	\$39.9	\$33.5	\$5.4	86%	\$40.9	\$18.7	\$16.2	53%	\$28.3	\$59.5	(\$4.2)
56	K19 Sales C33 750 MW	14	DSM Level 3	High	-7%	5.58%	1.49%	74%	103%	\$36.8	\$30.8	\$5.3	85%	\$41.9	\$19.5	\$16.4	54%	\$28.3	\$59.4	(\$4.3)
<b>2016-2022</b>																				
57	K19 Gas 750 MW	5	Base	High	-	4.40%	1.90%	64%	146%	\$26.0	\$20.6	\$4.7	82%	\$34.2	\$16.4	\$12.2	57%	\$28.9	\$62.4	-
58	K19 Gas 750 MW	5	DSM Level 1	High	-7%	4.77%	1.84%	63%	140%	\$25.8	\$20.4	\$4.7	81%	\$33.8	\$16.2	\$12.1	57%	\$28.6	\$59.7	(\$2.7)
59	K19 Gas 750 MW	5	DSM Level 2	High	-15%	4.86%	1.76%	57%	131%	\$25.4	\$20.1	\$4.7	81%	\$33.1	\$15.6	\$11.9	57%	\$27.9	\$57.2	(\$5.2)
60	K19 Gas 750 MW	5	DSM Level 3	High	-19%	5.33%	1.73%	59%	128%	\$25.3	\$20.0	\$4.7	81%	\$32.7	\$15.2	\$11.9	56%	\$28.2	\$56.8	(\$5.6)

\* 2012 Constant dollar Consumers' Revenue discounted at 1.86% real discount rate