

**Rate Case 2018**  
**Financial Feasibility - 55/30 year Horizon**  
**Parameters and Results**

Line No.	<u>Col. 1</u> Description	<u>Col. 2</u>	<u>Col. 3</u> Year 0	<u>Col. 4</u> Year 1	<u>Col. 5</u> Year 2	<u>Col. 6</u> Year 3	<u>Col. 7</u> Year 4	<u>Col. 8</u> Year 5-55
<b>FEASIBILITY PARAMETERS</b>								
1.	Discount Rate	5.17%						
2.	CCA Rate	6.00%						
3.	Tax Rate	26.70%						
4.	Municipal Tax rate	0.75%						
5.	Capital Tax Rate	0.00%						
6.	Customer Revenue Horizon							
7.	Residential (Years)	55						
8.	Commercial (Years)	30						
9.	Customer Additions							
10.	Residential			773	0	0	0	0
11.	Commercial			57	0	0	0	0
12.	Total Annual Volumes							
13.	Residential (m <sup>3</sup> )			538,689	1,077,378	1,077,378	1,077,378	1,077,378
14.	Commercial (m <sup>3</sup> )			726,374	1,452,747	1,452,747	1,452,747	1,452,747
15.	Capital Costs							
16.	Mains (Dollars)		2,341,533	0	0	0	0	0
17.	Services (Dollars)		2,106,781	0	0	0	0	0
18.	Meters (Dollars)		82,276	0	0	0	0	0
19.	Stations (Dollars)		111,503	0	0	0	0	0
20.	Commercial program (Dollars)		0	0	0	0	0	0
21.	Annual Revenues (Dollars)			504,877	1,009,754	1,009,754	1,009,754	1,009,754
22.	Annual O&M (Dollars)			43,662	87,323	87,323	87,323	87,323
<b>FEASIBILITY RESULTS</b>								
23.	Net Present Value (Dollars)	199,604						
24.	Profitability Index	1.04						
25.	IRR	5.48%						
26.	Levelized Rate Impact (55 years)	-0.0209%						
27.	Cross-Over Year	Year 16						

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**DCF Analysis**

	<u>Col. 1</u>	<u>Col. 2</u>	<u>Col. 3</u>	<u>Col. 4</u>	<u>Col. 5</u>	<u>Col. 6</u>	<u>Col. 7</u>	<u>Col. 8</u>	<u>Col. 9</u>	<u>Col. 10</u>	<u>Col. 11</u>	<u>Col. 12</u>
Line No.	Description	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	Discount factors to project outset	1.00	0.98	0.93	0.88	0.84	0.80	0.76	0.72	0.69	0.65	0.62
<b><u>INCREMENTAL CAPITAL INVESTMENT</u></b>												
1.	Investment in Mains	2,341,533	-	-	-	-	-	-	-	-	-	-
2.	Investment in Services	2,106,781	-	-	-	-	-	-	-	-	-	-
3.	Investment in Stations	111,503	-	-	-	-	-	-	-	-	-	-
4.	Investment in Meters	82,276	-	-	-	-	-	-	-	-	-	-
5.	Investment in Commercial program	-	-	-	-	-	-	-	-	-	-	-
6.	Contribution In Aid Of Construction	-	-	-	-	-	-	-	-	-	-	-
7.	Net Investment Capital	4,642,093	-	-	-	-	-	-	-	-	-	-
8.	Working Capital	-	(10,341)	-	-	-	-	-	-	-	-	-
9.	Total Investments	4,642,093	(10,341)	-	-	-	-	-	-	-	-	-
10.	PV Of Net Investment At Project Outset	(4,642,093)	10,083	-	-	-	-	-	-	-	-	-
11.	<b>ACCUMULATED PV OF TOTAL INVESTMENT</b>	<b>(4,642,093)</b>	<b>(4,632,009)</b>	<b>(4,632,009)</b>	<b>(4,632,009)</b>	<b>(4,632,009)</b>	<b>(4,632,009)</b>	<b>(4,632,009)</b>	<b>(4,632,009)</b>	<b>(4,632,009)</b>	<b>(4,632,009)</b>	<b>(4,632,009)</b>
<b><u>CCA TAX SHIELD</u></b>												
12.	CCA Tax Shield		37,183	72,135	67,807	63,739	59,914	56,320	52,940	49,764	46,778	43,971
13.	PV Of CCA Tax Shield At Project Outset		36,257	66,881	59,777	53,427	47,752	42,680	38,146	34,094	30,473	27,236
14.	<b>ACCUMULATED PV OF CCA TAX SHIELD</b>		<b>36,257</b>	<b>103,138</b>	<b>162,915</b>	<b>216,342</b>	<b>264,094</b>	<b>306,774</b>	<b>344,920</b>	<b>379,014</b>	<b>409,487</b>	<b>436,723</b>
<b><u>INCREMENTAL OPERATING CASHFLOWS (BEFORE TAXES)</u></b>												
15.	Gas Distribution Revenue		504,877	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754
16.	Gas Costs		(283,392)	(566,784)	(566,784)	(566,784)	(566,784)	(566,784)	(566,784)	(566,784)	(566,784)	(566,784)
17.	O&M		(43,662)	(87,323)	(87,323)	(87,323)	(87,323)	(87,323)	(87,323)	(87,323)	(87,323)	(87,323)
18.	Net Operating Cash (Before Taxes)		177,823	355,647	355,647	355,647	355,647	355,647	355,647	355,647	355,647	355,647
19.	PV of Net Operating Cash (Before Taxes) At Project Outset		173,396	329,740	313,527	298,110	283,452	269,514	256,262	243,661	231,680	220,288
20.	<b>ACCUMULATED PV OF NET OPERATING CASH (BEFORE TAXES)</b>		<b>173,396</b>	<b>503,137</b>	<b>816,663</b>	<b>1,114,773</b>	<b>1,398,225</b>	<b>1,667,739</b>	<b>1,924,000</b>	<b>2,167,661</b>	<b>2,399,341</b>	<b>2,619,629</b>
<b><u>TAXES</u></b>												
21.	Income Tax (Before Interest Tax Shield)		(38,175)	(85,788)	(86,079)	(86,369)	(86,660)	(86,951)	(87,241)	(87,532)	(87,822)	(88,113)
22.	Municipal Tax		(34,845)	(34,342)	(33,254)	(32,165)	(31,077)	(29,989)	(28,901)	(27,813)	(26,725)	(25,637)
23.	Capital Tax		-	-	-	-	-	-	-	-	-	-
24.	Federal Tax		-	-	-	-	-	-	-	-	-	-
25.	Total Taxes		(73,020)	(120,130)	(119,333)	(118,535)	(117,737)	(116,940)	(116,142)	(115,345)	(114,547)	(113,750)
26.	PV of Total Taxes At Project Outset		(71,202)	(111,379)	(105,200)	(99,358)	(93,837)	(88,619)	(83,686)	(79,025)	(74,620)	(70,457)
27.	<b>ACCUMULATED PV OF TOTAL TAXES</b>		<b>(71,202)</b>	<b>(182,582)</b>	<b>(287,782)</b>	<b>(387,140)</b>	<b>(480,977)</b>	<b>(569,596)</b>	<b>(653,282)</b>	<b>(732,307)</b>	<b>(806,927)</b>	<b>(877,383)</b>
<b><u>ACCUMULATED NPV AND PI</u></b>												
28.	Net Present Value	(4,642,093)	(4,493,558)	(4,208,316)	(3,940,213)	(3,688,034)	(3,450,667)	(3,227,092)	(3,016,371)	(2,817,641)	(2,630,108)	(2,453,041)
29.	Profitability Index		0.030	0.091	0.149	0.204	0.255	0.303	0.349	0.392	0.432	0.470

**Rate Case 2018**  
**Financial Feasibility - 55 year Horizon**  
**DCF Analysis**

	<u>Col. 1</u>	<u>Col. 13</u>	<u>Col. 14</u>	<u>Col. 15</u>	<u>Col. 16</u>	<u>Col. 17</u>	<u>Col. 18</u>	<u>Col. 19</u>	<u>Col. 20</u>	<u>Col. 21</u>	<u>Col. 22</u>	<u>Col. 23</u>
Line No.	Description	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21
	Discount factors to project outset	0.59	0.56	0.53	0.51	0.48	0.46	0.44	0.41	0.39	0.37	0.36
<b><u>INCREMENTAL CAPITAL INVESTMENT</u></b>												
1.	Investment in Mains	-	-	-	-	-	-	-	-	-	-	-
2.	Investment in Services	-	-	-	-	-	-	-	-	-	-	-
3.	Investment in Stations	-	-	-	-	-	-	-	-	-	-	-
4.	Investment in Meters	-	-	-	-	-	-	-	-	-	-	-
5.	Investment in Commercial program	-	-	-	-	-	-	-	-	-	-	-
6.	Contribution In Aid Of Construction	-	-	-	-	-	-	-	-	-	-	-
7.	Net Investment Capital	-	-	-	-	-	-	-	-	-	-	-
8.	Working Capital	-	-	-	-	-	-	-	-	-	-	-
9.	Total Investments	-	-	-	-	-	-	-	-	-	-	-
10.	PV Of Net Investment At Project Outset	-	-	-	-	-	-	-	-	-	-	-
11.	<b>ACCUMULATED PV OF TOTAL INVESTMENT</b>	<b>(4,632,009)</b>	<b>(4,632,009)</b>	<b>(4,632,009)</b>	<b>(4,632,009)</b>	<b>(4,632,009)</b>	<b>(4,632,009)</b>	<b>(4,632,009)</b>	<b>(4,632,009)</b>	<b>(4,632,009)</b>	<b>(4,632,009)</b>	<b>(4,632,009)</b>
<b><u>CCA TAX SHIELD</u></b>												
12.	CCA Tax Shield	41,333	38,853	36,522	34,331	32,271	30,335	28,515	26,804	25,195	23,684	22,263
13.	PV Of CCA Tax Shield At Project Outset	24,343	21,757	19,446	17,381	15,534	13,884	12,409	11,091	9,913	8,860	7,919
14.	<b>ACCUMULATED PV OF CCA TAX SHIELD</b>	<b>461,066</b>	<b>482,823</b>	<b>502,269</b>	<b>519,650</b>	<b>535,184</b>	<b>549,068</b>	<b>561,478</b>	<b>572,569</b>	<b>582,482</b>	<b>591,343</b>	<b>599,262</b>
<b><u>INCREMENTAL OPERATING CASHFLOWS (BEFORE TAXES)</u></b>												
15.	Gas Distribution Revenue	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754
16.	Gas Costs	(566,784)	(566,784)	(566,784)	(566,784)	(566,784)	(566,784)	(566,784)	(566,784)	(566,784)	(566,784)	(566,784)
17.	O&M	(87,323)	(87,323)	(87,323)	(87,323)	(87,323)	(87,323)	(87,323)	(87,323)	(87,323)	(87,323)	(87,323)
18.	Net Operating Cash (Before Taxes)	355,647	355,647	355,647	355,647	355,647	355,647	355,647	355,647	355,647	355,647	355,647
19.	PV of Net Operating Cash (Before Taxes) At Project Outset	209,456	199,157	189,364	180,053	171,199	162,781	154,777	147,166	139,930	133,049	126,507
20.	<b>ACCUMULATED PV OF NET OPERATING CASH (BEFORE TAXES)</b>	<b>2,829,085</b>	<b>3,028,241</b>	<b>3,217,605</b>	<b>3,397,658</b>	<b>3,568,857</b>	<b>3,731,638</b>	<b>3,886,415</b>	<b>4,033,581</b>	<b>4,173,511</b>	<b>4,306,560</b>	<b>4,433,067</b>
<b><u>TAXES</u></b>												
21.	Income Tax (Before Interest Tax Shield)	(88,403)	(88,694)	(88,984)	(89,275)	(89,565)	(89,856)	(90,146)	(90,437)	(90,727)	(91,018)	(91,308)
22.	Municipal Tax	(24,549)	(23,461)	(22,373)	(21,285)	(20,197)	(19,109)	(18,021)	(16,933)	(15,844)	(14,756)	(13,668)
23.	Capital Tax	-	-	-	-	-	-	-	-	-	-	-
24.	Federal Tax	-	-	-	-	-	-	-	-	-	-	-
25.	Total Taxes	(112,952)	(112,155)	(111,357)	(110,559)	(109,762)	(108,964)	(108,167)	(107,369)	(106,572)	(105,774)	(104,977)
26.	PV of Total Taxes At Project Outset	(66,522)	(62,805)	(59,292)	(55,973)	(52,837)	(49,873)	(47,074)	(44,429)	(41,931)	(39,571)	(37,341)
27.	<b>ACCUMULATED PV OF TOTAL TAXES</b>	<b>(943,906)</b>	<b>(1,006,711)</b>	<b>(1,066,003)</b>	<b>(1,121,975)</b>	<b>(1,174,812)</b>	<b>(1,224,685)</b>	<b>(1,271,759)</b>	<b>(1,316,189)</b>	<b>(1,358,120)</b>	<b>(1,397,690)</b>	<b>(1,435,031)</b>
<b><u>ACCUMULATED NPV AND PI</u></b>												
28.	Net Present Value	(2,285,765)	(2,127,656)	(1,978,138)	(1,836,677)	(1,702,781)	(1,575,989)	(1,455,876)	(1,342,048)	(1,234,136)	(1,131,797)	(1,034,712)
29.	Profitability Index	0.507	0.541	0.573	0.603	0.632	0.660	0.686	0.710	0.734	0.756	0.777

**Rate Case 2018**  
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**DCF Analysis**

	<u>Col. 1</u>	<u>Col. 24</u>	<u>Col. 25</u>	<u>Col. 26</u>	<u>Col. 27</u>	<u>Col. 28</u>	<u>Col. 29</u>	<u>Col. 30</u>	<u>Col. 31</u>	<u>Col. 32</u>	<u>Col. 33</u>	<u>Col. 34</u>
Line No.	Description	Year 22	Year 23	Year 24	Year 25	Year 26	Year 27	Year 28	Year 29	Year 30	Year 31	Year 32
	Discount factors to project outset	0.34	0.32	0.31	0.29	0.28	0.26	0.25	0.24	0.23	0.21	0.20
<b><u>INCREMENTAL CAPITAL INVESTMENT</u></b>												
1.	Investment in Mains	-	-	-	-	-	-	-	-	-	-	-
2.	Investment in Services	-	-	-	-	-	-	-	-	-	-	-
3.	Investment in Stations	-	-	-	-	-	-	-	-	-	-	-
4.	Investment in Meters	-	-	-	-	-	-	-	-	-	-	-
5.	Investment in Commercial program	-	-	-	-	-	-	-	-	-	-	-
6.	Contribution In Aid Of Construction	-	-	-	-	-	-	-	-	-	-	-
7.	Net Investment Capital	-	-	-	-	-	-	-	-	-	-	-
8.	Working Capital	-	-	-	-	-	-	-	-	-	6,835	-
9.	Total Investments	-	-	-	-	-	-	-	-	-	6,835	-
10.	PV Of Net Investment At Project Outset	-	-	-	-	-	-	-	-	-	(1,468)	-
11.	<b>ACCUMULATED PV OF TOTAL INVESTMENT</b>	<b>(4,632,009)</b>	<b>(4,632,009)</b>	<b>(4,632,009)</b>	<b>(4,632,009)</b>	<b>(4,632,009)</b>	<b>(4,632,009)</b>	<b>(4,632,009)</b>	<b>(4,632,009)</b>	<b>(4,632,009)</b>	<b>(4,633,478)</b>	<b>(4,633,478)</b>
<b><u>CCA TAX SHIELD</u></b>												
12.	CCA Tax Shield	20,927	19,671	18,491	17,382	16,339	15,358	14,437	13,571	12,756	11,991	11,272
13.	PV Of CCA Tax Shield At Project Outset	7,078	6,326	5,654	5,054	4,517	4,037	3,608	3,225	2,882	2,576	2,303
14.	<b>ACCUMULATED PV OF CCA TAX SHIELD</b>	<b>606,340</b>	<b>612,666</b>	<b>618,320</b>	<b>623,373</b>	<b>627,890</b>	<b>631,927</b>	<b>635,535</b>	<b>638,760</b>	<b>641,642</b>	<b>644,219</b>	<b>646,521</b>
<b><u>INCREMENTAL OPERATING CASHFLOWS (BEFORE TAXES)</u></b>												
15.	Gas Distribution Revenue	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	553,773	553,773
16.	Gas Costs	(566,784)	(566,784)	(566,784)	(566,784)	(566,784)	(566,784)	(566,784)	(566,784)	(566,784)	(244,565)	(244,565)
17.	O&M	(87,323)	(87,323)	(87,323)	(87,323)	(87,323)	(87,323)	(87,323)	(87,323)	(87,323)	(72,585)	(72,585)
18.	Net Operating Cash (Before Taxes)	355,647	355,647	355,647	355,647	355,647	355,647	355,647	355,647	355,647	236,624	236,624
19.	PV of Net Operating Cash (Before Taxes) At Project Outset	120,287	114,372	108,748	103,401	98,317	93,482	88,886	84,515	80,359	50,837	48,337
20.	<b>ACCUMULATED PV OF NET OPERATING CASH (BEFORE TAXES)</b>	<b>4,553,354</b>	<b>4,667,726</b>	<b>4,776,474</b>	<b>4,879,875</b>	<b>4,978,191</b>	<b>5,071,674</b>	<b>5,160,559</b>	<b>5,245,074</b>	<b>5,325,433</b>	<b>5,376,270</b>	<b>5,424,607</b>
<b><u>TAXES</u></b>												
21.	Income Tax (Before Interest Tax Shield)	(91,599)	(91,889)	(92,066)	(92,172)	(92,278)	(92,385)	(92,491)	(92,597)	(92,703)	(61,209)	(61,315)
22.	Municipal Tax	(12,580)	(11,492)	(10,830)	(10,432)	(10,035)	(9,637)	(9,240)	(8,842)	(8,445)	(7,376)	(6,978)
23.	Capital Tax	-	-	-	-	-	-	-	-	-	-	-
24.	Federal Tax	-	-	-	-	-	-	-	-	-	-	-
25.	Total Taxes	(104,179)	(103,381)	(102,896)	(102,605)	(102,313)	(102,022)	(101,730)	(101,439)	(101,148)	(68,585)	(68,294)
26.	PV of Total Taxes At Project Outset	(35,235)	(33,246)	(31,463)	(29,831)	(28,284)	(26,817)	(25,425)	(24,106)	(22,855)	(14,735)	(13,951)
27.	<b>ACCUMULATED PV OF TOTAL TAXES</b>	<b>(1,470,267)</b>	<b>(1,503,513)</b>	<b>(1,534,976)</b>	<b>(1,564,808)</b>	<b>(1,593,091)</b>	<b>(1,619,908)</b>	<b>(1,645,333)</b>	<b>(1,669,439)</b>	<b>(1,692,293)</b>	<b>(1,707,028)</b>	<b>(1,720,979)</b>
<b><u>ACCUMULATED NPV AND PI</u></b>												
28.	Net Present Value	(942,583)	(855,131)	(772,192)	(693,569)	(619,019)	(548,317)	(481,248)	(417,614)	(357,227)	(320,018)	(283,329)
29.	Profitability Index	0.797	0.815	0.833	0.850	0.866	0.882	0.896	0.910	0.923	0.931	0.939

**Rate Case 2018**  
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**DCF Analysis**

	<u>Col. 1</u>	<u>Col. 35</u>	<u>Col. 36</u>	<u>Col. 37</u>	<u>Col. 38</u>	<u>Col. 39</u>	<u>Col. 40</u>	<u>Col. 41</u>	<u>Col. 42</u>	<u>Col. 43</u>	<u>Col. 44</u>	<u>Col. 45</u>
Line No.	Description	Year 33	Year 34	Year 35	Year 36	Year 37	Year 38	Year 39	Year 40	Year 41	Year 42	Year 43
	Discount factors to project outset	0.19	0.18	0.18	0.17	0.16	0.15	0.14	0.14	0.13	0.12	0.12
<b><u>INCREMENTAL CAPITAL INVESTMENT</u></b>												
1.	Investment in Mains	-	-	-	-	-	-	-	-	-	-	-
2.	Investment in Services	-	-	-	-	-	-	-	-	-	-	-
3.	Investment in Stations	-	-	-	-	-	-	-	-	-	-	-
4.	Investment in Meters	-	-	-	-	-	-	-	-	-	-	-
5.	Investment in Commercial program	-	-	-	-	-	-	-	-	-	-	-
6.	Contribution In Aid Of Construction	-	-	-	-	-	-	-	-	-	-	-
7.	Net Investment Capital	-	-	-	-	-	-	-	-	-	-	-
8.	Working Capital	-	-	-	-	-	-	-	-	-	-	-
9.	Total Investments	-	-	-	-	-	-	-	-	-	-	-
10.	PV Of Net Investment At Project Outset	-	-	-	-	-	-	-	-	-	-	-
11.	<b>ACCUMULATED PV OF TOTAL INVESTMENT</b>	<b>(4,633,478)</b>	<b>(4,633,478)</b>	<b>(4,633,478)</b>	<b>(4,633,478)</b>	<b>(4,633,478)</b>	<b>(4,633,478)</b>	<b>(4,633,478)</b>	<b>(4,633,478)</b>	<b>(4,633,478)</b>	<b>(4,633,478)</b>	<b>(4,633,478)</b>
<b><u>CCA TAX SHIELD</u></b>												
12.	CCA Tax Shield	10,595	9,960	9,362	8,800	8,272	7,776	7,309	6,871	6,459	6,071	5,707
13.	PV Of CCA Tax Shield At Project Outset	2,058	1,839	1,644	1,469	1,313	1,174	1,049	938	838	749	669
14.	<b>ACCUMULATED PV OF CCA TAX SHIELD</b>	<b>648,579</b>	<b>650,418</b>	<b>652,062</b>	<b>653,532</b>	<b>654,845</b>	<b>656,019</b>	<b>657,068</b>	<b>658,006</b>	<b>658,844</b>	<b>659,593</b>	<b>660,262</b>
<b><u>INCREMENTAL OPERATING CASHFLOWS (BEFORE TAXES)</u></b>												
15.	Gas Distribution Revenue	553,773	553,773	553,773	553,773	553,773	553,773	553,773	553,773	553,773	553,773	553,773
16.	Gas Costs	(244,565)	(244,565)	(244,565)	(244,565)	(244,565)	(244,565)	(244,565)	(244,565)	(244,565)	(244,565)	(244,565)
17.	O&M	(72,585)	(72,585)	(72,585)	(72,585)	(72,585)	(72,585)	(72,585)	(72,585)	(72,585)	(72,585)	(72,585)
18.	Net Operating Cash (Before Taxes)	236,624	236,624	236,624	236,624	236,624	236,624	236,624	236,624	236,624	236,624	236,624
19.	PV of Net Operating Cash (Before Taxes) At Project Outset	45,960	43,700	41,551	39,508	37,566	35,719	33,962	32,292	30,704	29,195	27,759
20.	<b>ACCUMULATED PV OF NET OPERATING CASH (BEFORE TAXES)</b>	<b>5,470,567</b>	<b>5,514,267</b>	<b>5,555,819</b>	<b>5,595,327</b>	<b>5,632,893</b>	<b>5,668,611</b>	<b>5,702,574</b>	<b>5,734,866</b>	<b>5,765,570</b>	<b>5,794,765</b>	<b>5,822,524</b>
<b><u>TAXES</u></b>												
21.	Income Tax (Before Interest Tax Shield)	(61,422)	(61,528)	(61,634)	(61,740)	(61,846)	(61,952)	(62,054)	(62,155)	(62,255)	(62,355)	(62,456)
22.	Municipal Tax	(6,581)	(6,183)	(5,786)	(5,388)	(4,990)	(4,593)	(4,210)	(3,835)	(3,459)	(3,083)	(2,707)
23.	Capital Tax	-	-	-	-	-	-	-	-	-	-	-
24.	Federal Tax	-	-	-	-	-	-	-	-	-	-	-
25.	Total Taxes	(68,002)	(67,711)	(67,419)	(67,128)	(66,837)	(66,545)	(66,265)	(65,989)	(65,714)	(65,438)	(65,163)
26.	PV of Total Taxes At Project Outset	(13,208)	(12,505)	(11,839)	(11,208)	(10,611)	(10,045)	(9,511)	(9,006)	(8,527)	(8,074)	(7,644)
27.	<b>ACCUMULATED PV OF TOTAL TAXES</b>	<b>(1,734,187)</b>	<b>(1,746,692)</b>	<b>(1,758,531)</b>	<b>(1,769,740)</b>	<b>(1,780,350)</b>	<b>(1,790,395)</b>	<b>(1,799,906)</b>	<b>(1,808,912)</b>	<b>(1,817,439)</b>	<b>(1,825,513)</b>	<b>(1,833,157)</b>
<b><u>ACCUMULATED NPV AND PI</u></b>												
28.	Net Present Value	(248,519)	(215,485)	(184,128)	(154,359)	(126,090)	(99,243)	(73,743)	(49,518)	(26,503)	(4,633)	16,151
29.	Profitability Index	0.946	0.953	0.960	0.967	0.973	0.979	0.984	0.989	0.994	0.999	1.003

**Rate Case 2018**  
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	<u>Col. 1</u>	<u>Col. 46</u>	<u>Col. 47</u>	<u>Col. 48</u>	<u>Col. 49</u>	<u>Col. 50</u>	<u>Col. 51</u>	<u>Col. 52</u>	<u>Col. 53</u>	<u>Col. 54</u>	<u>Col. 55</u>	<u>Col. 56</u>	<u>Col. 57</u>
Line No.	Description	Year 44	Year 45	Year 46	Year 47	Year 48	Year 49	Year 50	Year 51	Year 52	Year 53	Year 54	Year 55
	Discount factors to project outset	0.11	0.11	0.10	0.10	0.09	0.09	0.08	0.08	0.07	0.07	0.07	0.06
<b><u>INCREMENTAL CAPITAL INVESTMENT</u></b>													
1.	Investment in Mains	-	-	-	-	-	-	-	-	-	-	-	-
2.	Investment in Services	-	-	-	-	-	-	-	-	-	-	-	-
3.	Investment in Stations	-	-	-	-	-	-	-	-	-	-	-	-
4.	Investment in Meters	-	-	-	-	-	-	-	-	-	-	-	-
5.	Investment in Commercial program	-	-	-	-	-	-	-	-	-	-	-	-
6.	Contribution In Aid Of Construction	-	-	-	-	-	-	-	-	-	-	-	-
7.	Net Investment Capital	-	-	-	-	-	-	-	-	-	-	-	-
8.	Working Capital	-	-	-	-	-	-	-	-	-	-	-	-
9.	Total Investments	-	-	-	-	-	-	-	-	-	-	-	-
10.	PV Of Net Investment At Project Outset	-	-	-	-	-	-	-	-	-	-	-	-
11.	<b>ACCUMULATED PV OF TOTAL INVESTMENT</b>	<b>(4,633,478)</b>	<b>(4,633,478)</b>	<b>(4,633,478)</b>	<b>(4,633,478)</b>	<b>(4,633,478)</b>	<b>(4,633,478)</b>	<b>(4,633,478)</b>	<b>(4,633,478)</b>	<b>(4,633,478)</b>	<b>(4,633,478)</b>	<b>(4,633,478)</b>	<b>(4,633,478)</b>
<b><u>CCA TAX SHIELD</u></b>													
12.	CCA Tax Shield	5,364	5,042	4,740	4,456	4,188	3,937	3,701	3,479	3,270	3,074	2,889	25,569
13.	PV Of CCA Tax Shield At Project Outset	598	535	478	427	382	341	305	273	244	218	195	1,638
14.	<b>ACCUMULATED PV OF CCA TAX SHIELD</b>	<b>660,860</b>	<b>661,395</b>	<b>661,873</b>	<b>662,300</b>	<b>662,682</b>	<b>663,024</b>	<b>663,329</b>	<b>663,601</b>	<b>663,845</b>	<b>664,063</b>	<b>664,257</b>	<b>665,895</b>
<b><u>INCREMENTAL OPERATING CASHFLOWS (BEFORE TAXES)</u></b>													
15.	Gas Distribution Revenue	553,773	553,773	553,773	553,773	553,773	553,773	553,773	553,773	553,773	553,773	553,773	553,773
16.	Gas Costs	(244,565)	(244,565)	(244,565)	(244,565)	(244,565)	(244,565)	(244,565)	(244,565)	(244,565)	(244,565)	(244,565)	(244,565)
17.	O&M	(72,585)	(72,585)	(72,585)	(72,585)	(72,585)	(72,585)	(72,585)	(72,585)	(72,585)	(72,585)	(72,585)	(72,585)
18.	Net Operating Cash (Before Taxes)	236,624	236,624	236,624	236,624	236,624	236,624	236,624	236,624	236,624	236,624	236,624	236,624
19.	PV of Net Operating Cash (Before Taxes) At Project Outset	26,394	25,096	23,862	22,689	21,573	20,512	19,504	18,545	17,633	16,766	15,942	15,158
20.	<b>ACCUMULATED PV OF NET OPERATING CASH (BEFORE TAXES)</b>	<b>5,848,918</b>	<b>5,874,014</b>	<b>5,897,876</b>	<b>5,920,565</b>	<b>5,942,139</b>	<b>5,962,651</b>	<b>5,982,155</b>	<b>6,000,700</b>	<b>6,018,333</b>	<b>6,035,099</b>	<b>6,051,040</b>	<b>6,066,198</b>
<b><u>TAXES</u></b>													
21.	Income Tax (Before Interest Tax Shield)	(62,556)	(62,656)	(62,757)	(62,857)	(62,957)	(63,039)	(63,042)	(63,046)	(63,046)	(63,046)	(63,046)	(63,046)
22.	Municipal Tax	(2,332)	(1,956)	(1,580)	(1,204)	(829)	(522)	(510)	(498)	(498)	(498)	(498)	(498)
23.	Capital Tax	-	-	-	-	-	-	-	-	-	-	-	-
24.	Federal Tax	-	-	-	-	-	-	-	-	-	-	-	-
25.	Total Taxes	(64,888)	(64,612)	(64,337)	(64,061)	(63,786)	(63,561)	(63,552)	(63,543)	(63,543)	(63,543)	(63,543)	(63,543)
26.	PV of Total Taxes At Project Outset	(7,238)	(6,853)	(6,488)	(6,143)	(5,815)	(5,510)	(5,238)	(4,980)	(4,735)	(4,502)	(4,281)	(4,070)
27.	<b>ACCUMULATED PV OF TOTAL TAXES</b>	<b>(1,840,395)</b>	<b>(1,847,248)</b>	<b>(1,853,736)</b>	<b>(1,859,878)</b>	<b>(1,865,694)</b>	<b>(1,871,204)</b>	<b>(1,876,442)</b>	<b>(1,881,422)</b>	<b>(1,886,157)</b>	<b>(1,890,660)</b>	<b>(1,894,941)</b>	<b>(1,899,011)</b>
<b><u>ACCUMULATED NPV AND PI</u></b>													
28.	Net Present Value	35,905	54,684	72,536	89,510	105,649	120,993	135,563	149,401	162,542	175,024	186,879	<b>199,604</b>
29.	Profitability Index	1.008	1.012	1.016	1.019	1.023	1.026	1.029	1.032	1.035	1.038	1.040	<b>1.043</b>

**Rate Case 2018**  
**Financial Feasibility - 55 year Horizon**  
**Rate Impact Analysis**

Dollars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	1	2	3	4	5	6	7	8	9	10
<b>REVENUE</b>										
A. Effective Project Revenue	504,877	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754
B. Year "0" Revenue (2017 Rate Case)	56,642,000									
C. Total Revenue (year "0" + projected revenue)	56,642,000	57,146,877	57,651,754	57,651,754	57,651,754	57,651,754	57,651,754	57,651,754	57,651,754	57,651,754
<b>REVENUE REQUIREMENT</b>										
D. Effective Project Revenue Requirement	572,895	1,104,397	1,098,978	1,093,205	1,087,099	1,080,680	1,073,967	1,066,977	1,059,727	1,052,233
E. Year "0" Revenue Requirement	56,642,000									
F. Total Revenue Requirement (year "0" + project rev.req.)	56,642,000	57,214,895	57,746,397	57,740,978	57,735,205	57,729,099	57,722,680	57,715,967	57,708,977	57,694,233
<b>(D - A) DEFICIENCY</b>	68,018	94,643	89,224	83,451	77,345	70,926	64,213	57,223	49,973	42,479
<b>(D - A)/ C % Rate Impact</b>	0.119%	0.16%	0.15%	0.14%	0.134%	0.12%	0.11%	0.10%	0.09%	0.07%
<b>LEVELIZED RATE IMPACT CALCULATION</b>										
L. Deficiency (D -A)	68,018	94,643	89,224	83,451	77,345	70,926	64,213	57,223	49,973	42,479
M. \$ Levelized Deficiency (55 yrs.)	Disc. Rate of	(12,055)								
N. Levelized Revenue	6.285%	57,555,470								
O. % Levelized Rate Impact		-0.0209%	(11,969)	(12,075)	(12,075)	(12,075)	(12,075)	(12,075)	(12,075)	(12,075)

**Rate Case 2018**  
**Financial Feasibility - 55 year Horizon**  
**Rate Impact Analysis**

Dollars	Year 11 11	Year 12 12	Year 13 13	Year 14 14	Year 15 15	Year 16 16	Year 17 17	Year 18 18	Year 19 19	Year 20 20	Year 21 21
<b>REVENUE</b>											
A. Effective Project Revenue	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754
B. Year "0" Revenue (2017 Rate Case)											
C. Total Revenue (year "0" + projected revenue)	57,651,754	57,651,754	57,651,754	57,651,754	57,651,754	57,651,754	57,651,754	57,651,754	57,651,754	57,651,754	57,651,754
<b>REVENUE REQUIREMENT</b>											
D. Effective Project Revenue Requirement	1,044,509	1,036,569	1,028,426	1,020,092	1,011,579	1,002,897	994,057	985,067	975,938	966,677	957,292
E. Year "0" Revenue Requirement											
F. Total Revenue Requirement (year "0" + project rev.req.)	57,686,509	57,678,569	57,670,426	57,662,092	57,653,579	57,644,897	57,636,057	57,627,067	57,617,938	57,608,677	57,599,292
<b>(D - A) DEFICIENCY</b>	34,755	26,815	18,672	10,338	1,825	(6,857)	(15,697)	(24,687)	(33,816)	(43,077)	(52,462)
<b>(D - A)/ C % Rate Impact</b>	0.06%	0.05%	0.03%	0.02%	0.003%	-0.012%	-0.03%	-0.04%	-0.06%	-0.07%	-0.09%
<b>LEVELIZED RATE IMPACT CALCULATION</b>											
L. Deficiency (D -A)	34,755	26,815	18,672	10,338	1,825	(6,857)	(15,697)	(24,687)	(33,816)	(43,077)	(52,462)
M. \$ Levelized Deficiency (55 yrs.)											
N. Levelized Revenue											
O. % Levelized Rate Impact	(12,075)	(12,075)	(12,075)	(12,075)	(12,075)	(12,075)	(12,075)	(12,075)	(12,075)	(12,075)	(12,075)



**Rate Case 2018**  
**Financial Feasibility - 55 year Horizon**  
**Rate Impact Analysis**

Dollars	Year 22 22	Year 23 23	Year 24 24	Year 25 25	Year 26 26	Year 27 27	Year 28 28	Year 29 29	Year 30 30	Year 31 31	Year 32 32	Year 33 33	
<b>REVENUE</b>													
A. Effective Project Revenue	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	1,009,754	553,773	553,773	553,773
B. Year "0" Revenue (2017 Rate Case)													
C. Total Revenue (year "0" + projected revenue)	57,651,754	57,651,754	57,651,754	57,651,754	57,651,754	57,651,754	57,651,754	57,651,754	57,651,754	57,651,754	57,195,773	57,195,773	57,195,773
<b>REVENUE REQUIREMENT</b>													
D. Effective Project Revenue Requirement	947,791	938,181	853,437	801,426	798,711	795,911	793,031	790,075	787,049	446,567	443,653	440,438	
E. Year "0" Revenue Requirement													
F. Total Revenue Requirement (year "0" + project rev.req.)	57,589,791	57,580,181	57,495,437	57,443,426	57,440,711	57,437,911	57,435,031	57,432,075	57,429,049	57,088,567	57,085,653	57,082,438	
<b>(D - A) DEFICIENCY</b>	(61,963)	(71,573)	(156,317)	(208,328)	(211,043)	(213,843)	(216,723)	(219,679)	(222,706)	(107,206)	(110,121)	(113,336)	
<b>(D - A) / C % Rate Impact</b>	-0.11%	-0.12%	-0.27%	-0.36%	-0.37%	-0.37%	-0.38%	-0.38%	-0.39%	-0.19%	-0.19%	-0.20%	
<b>LEVELIZED RATE IMPACT CALCULATION</b>													
L. Deficiency (D -A)	(61,963)	(71,573)	(156,317)	(208,328)	(211,043)	(213,843)	(216,723)	(219,679)	(222,706)	(107,206)	(110,121)	(113,336)	
M. \$ Levelized Deficiency (55 yrs.)													
N. Levelized Revenue													
O. % Levelized Rate Impact	(12,075)	(12,075)	(12,075)	(12,075)	(12,075)	(12,075)	(12,075)	(12,075)	(12,075)	(11,980)	(11,980)	(11,980)	

**Rate Case 2018**  
**Financial Feasibility - 55 year Horizon**  
**Rate Impact Analysis**

Dollars	Year 34 34	Year 35 35	Year 36 36	Year 37 37	Year 38 38	Year 39 39	Year 40 40	Year 41 41	Year 42 42	Year 43 43	Year 44 44
<b>REVENUE</b>											
A. Effective Project Revenue	553,773	553,773	553,773	553,773	553,773	553,773	553,773	553,773	553,773	553,773	553,773
B. Year "0" Revenue (2017 Rate Case)											
C. Total Revenue (year "0" + projected revenue)	57,195,773	57,195,773	57,195,773	57,195,773	57,195,773	57,195,773	57,195,773	57,195,773	57,195,773	57,195,773	57,195,773
<b>REVENUE REQUIREMENT</b>											
D. Effective Project Revenue Requirement	437,168	433,846	430,474	427,057	423,597	417,459	412,867	409,519	406,137	402,724	399,281
E. Year "0" Revenue Requirement											
F. Total Revenue Requirement (year "0" + project rev.req.)	57,079,168	57,075,846	57,072,474	57,069,057	57,065,597	57,059,459	57,054,867	57,051,519	57,048,137	57,044,724	57,041,281
<b>(D - A) DEFICIENCY</b>	(116,606)	(119,928)	(123,299)	(126,716)	(130,176)	(136,315)	(140,906)	(144,254)	(147,636)	(151,049)	(154,492)
<b>(D - A) / C % Rate Impact</b>	-0.20%	-0.21%	-0.22%	-0.22%	-0.23%	-0.24%	-0.25%	-0.25%	-0.26%	-0.26%	-0.27%
<b>LEVELIZED RATE IMPACT CALCULATION</b>											
L. Deficiency (D -A)	(116,606)	(119,928)	(123,299)	(126,716)	(130,176)	(136,315)	(140,906)	(144,254)	(147,636)	(151,049)	(154,492)
M. \$ Levelized Deficiency (55 yrs.)											
N. Levelized Revenue											
O. % Levelized Rate Impact	(11,980)	(11,980)	(11,980)	(11,980)	(11,980)	(11,980)	(11,980)	(11,980)	(11,980)	(11,980)	(11,980)

**Rate Case 2018**  
**Financial Feasibility - 55 year Horizon**  
**Rate Impact Analysis**

Dollars	Year 45 45	Year 46 46	Year 47 47	Year 48 48	Year 49 49	Year 50 50	Year 51 51	Year 52 52	Year 53 53	Year 54 54	Year 55 55
<b>REVENUE</b>											
A. Effective Project Revenue	553,773	553,773	553,773	553,773	553,773	553,773	553,773	553,773	553,773	553,773	553,773
B. Year "0" Revenue (2017 Rate Case)											
C. Total Revenue (year "0" + projected revenue)	57,195,773	57,195,773	57,195,773	57,195,773	57,195,773	57,195,773	57,195,773	57,195,773	57,195,773	57,195,773	57,195,773
<b>REVENUE REQUIREMENT</b>											
D. Effective Project Revenue Requirement	395,810	392,312	388,790	385,244	369,454	314,759	314,935	312,950	313,207	313,458	313,695
E. Year "0" Revenue Requirement											
F. Total Revenue Requirement (year "0" + project rev.req.)	57,037,810	57,034,312	57,030,790	57,027,244	57,011,454	56,956,759	56,956,935	56,954,950	56,955,207	56,955,458	56,955,695
<b>(D - A) DEFICIENCY</b>	(157,964)	(161,461)	(164,983)	(168,529)	(184,319)	(239,014)	(238,839)	(240,823)	(240,567)	(240,315)	(240,079)
<b>(D - A) / C % Rate Impact</b>	-0.28%	-0.28%	-0.29%	-0.29%	-0.32%	-0.42%	-0.42%	-0.42%	-0.42%	-0.42%	-0.42%
<b>LEVELIZED RATE IMPACT CALCULATION</b>											
L. Deficiency (D -A)	(157,964)	(161,461)	(164,983)	(168,529)	(184,319)	(239,014)	(238,839)	(240,823)	(240,567)	(240,315)	(240,079)
M. \$ Levelized Deficiency (55 yrs.)											
N. Levelized Revenue											
O. % Levelized Rate Impact	(11,980)	(11,980)	(11,980)	(11,980)	(11,980)	(11,980)	(11,980)	(11,980)	(11,980)	(11,980)	(11,980)

**Rate Case 2018  
55 Year Rate Impact**

