

Table 1
 FERC Account 376 - Gas Distribution Mains
 Detailed Data for Minimum System Study
 Based on Historical Year Ending December 31, 2021

Company	Product	Account	Retirement Unit Code	Retirement Unit Description	Year	PowerPlant Quantity	Actual Total Cost	Actual Unit Cost	Escalated Total Cost	Escalated Unit Cost	Material	Size	Cost (Current or Historic)	Cost (Current or Historic)
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1953	2835	\$913.89	\$0.32	\$8,251.89	\$2.91	0	1.00	\$8,251.89	\$8,251.89
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1953	244845	\$79,168.85	\$0.32	\$714,848.11	\$2.92	0	2.00	\$714,848.11	\$714,848.11
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1953	10659	\$3,438.15	\$0.32	\$31,044.46	\$2.91	0	3.00	\$31,044.46	\$31,044.46
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1953	76040	\$49,049.90	\$0.65	\$442,891.74	\$5.82	0	4.00	\$442,891.74	\$442,891.74
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	1953	165	\$879.51	\$5.33	\$7,941.45	\$48.13	0	6.00	\$7,941.45	\$7,941.45
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1953	265	\$269.63	\$1.02	\$2,434.60	\$9.19	1	1.25	\$2,434.60	\$2,434.60
Minnesota Energy Resrcs	Gas	37600-Mains	186	Steel 10 in	1953	35487	\$51,198.76	\$1.44	\$462,294.69	\$13.03	1	10.00	\$462,294.69	\$462,294.69
Minnesota Energy Resrcs	Gas	37600-Mains	187	Steel 12 in	1953	9909	\$1,818.85	\$0.18	\$16,423.13	\$1.66	1	12.00	\$16,423.13	\$16,423.13
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1953	33640	\$33,369.81	\$0.99	\$301,309.75	\$8.96	1	2.00	\$301,309.75	\$301,309.75
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1953	9130	\$8,910.09	\$0.98	\$80,452.87	\$8.81	1	3.00	\$80,452.87	\$80,452.87
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1953	10244	\$26,533.76	\$2.59	\$239,584.24	\$23.39	1	4.00	\$239,584.24	\$239,584.24
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	1953	17725	\$93,635.13	\$5.28	\$845,470.14	\$47.70	1	6.00	\$845,470.14	\$845,470.14
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	1953	17	\$23.60	\$1.39	\$213.08	\$12.53	1	8.00	\$213.08	\$213.08
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1954	430	\$488.43	\$1.14	\$4,410.24	\$10.26	0	1.00	\$4,410.24	\$4,410.24
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1954	179993	\$81,292.79	\$0.45	\$734,026.11	\$4.08	0	2.00	\$734,026.11	\$734,026.11
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1954	1545	\$697.73	\$0.45	\$6,300.09	\$4.08	0	3.00	\$6,300.09	\$6,300.09
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1954	64128	\$57,976.31	\$0.90	\$523,491.96	\$8.16	0	4.00	\$523,491.96	\$523,491.96
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	1954	356	\$321.51	\$0.90	\$2,903.04	\$8.15	0	6.00	\$2,903.04	\$2,903.04
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1954	2636	\$3,762.93	\$1.43	\$33,977.05	\$12.89	1	1.25	\$33,977.05	\$33,977.05
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1954	33569	\$48,228.43	\$1.44	\$435,474.36	\$12.97	1	2.00	\$435,474.36	\$435,474.36
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1954	7956	\$11,354.97	\$1.43	\$102,528.70	\$12.89	1	3.00	\$102,528.70	\$102,528.70
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1954	12835	\$52,267.94	\$4.07	\$471,948.75	\$36.77	1	4.00	\$471,948.75	\$471,948.75
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	1954	2601	\$19,386.44	\$7.45	\$175,048.15	\$67.30	1	6.00	\$175,048.15	\$175,048.15
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	1954	2536	\$628.69	\$0.25	\$5,676.70	\$2.24	1	8.00	\$5,676.70	\$5,676.70
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1955	139	\$37.22	\$0.27	\$336.07	\$2.42	0	1.00	\$336.07	\$336.07
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1955	38288	\$10,417.19	\$0.27	\$94,061.11	\$2.46	0	2.00	\$94,061.11	\$94,061.11
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1955	365	\$98.33	\$0.27	\$887.87	\$2.43	0	3.00	\$887.87	\$887.87
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1955	25819	\$13,626.36	\$0.53	\$123,038.01	\$4.77	0	4.00	\$123,038.01	\$123,038.01
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	1955	12184	\$6,571.59	\$0.54	\$59,337.59	\$4.87	0	6.00	\$59,337.59	\$59,337.59
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1955	1536	\$1,309.58	\$0.85	\$11,824.74	\$7.70	1	1.25	\$11,824.74	\$11,824.74
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1955	47099	\$38,260.55	\$0.81	\$345,470.25	\$7.33	1	2.00	\$345,470.25	\$345,470.25
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1955	6584	\$5,642.73	\$0.86	\$50,950.53	\$7.74	1	3.00	\$50,950.53	\$50,950.53
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1955	13212	\$30,599.90	\$2.32	\$276,299.09	\$20.91	1	4.00	\$276,299.09	\$276,299.09
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	1955	6235	\$26,682.71	\$4.28	\$240,929.17	\$38.64	1	6.00	\$240,929.17	\$240,929.17
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1956	384	\$207.90	\$0.54	\$1,877.22	\$4.89	0	1.00	\$1,877.22	\$1,877.22
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1956	85407	\$46,412.52	\$0.54	\$419,077.77	\$4.91	0	2.00	\$419,077.77	\$419,077.77
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1956	8814	\$10,013.95	\$1.14	\$90,420.08	\$10.26	0	4.00	\$90,420.08	\$90,420.08
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1956	130	\$222.42	\$1.71	\$2,008.32	\$15.45	1	1.25	\$2,008.32	\$2,008.32
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1956	8797	\$15,133.26	\$1.72	\$136,644.43	\$15.53	1	2.00	\$136,644.43	\$136,644.43
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1956	64	\$307.07	\$4.80	\$2,772.66	\$43.32	1	4.00	\$2,772.66	\$2,772.66
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1957	109770	\$77,836.17	\$0.71	\$702,814.82	\$6.40	0	2.00	\$702,814.82	\$702,814.82
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1957	40451	\$57,707.62	\$1.43	\$521,065.87	\$12.88	0	4.00	\$521,065.87	\$521,065.87
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1958	1064	\$643.67	\$0.60	\$5,811.96	\$5.46	0	1.00	\$5,811.96	\$5,811.96
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1958	147243	\$87,554.07	\$0.59	\$790,561.75	\$5.37	0	2.00	\$790,561.75	\$790,561.75
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1958	25597	\$31,568.98	\$1.23	\$285,049.32	\$11.14	0	4.00	\$285,049.32	\$285,049.32
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1958	8030	\$42,897.75	\$5.34	\$387,341.45	\$48.24	1	4.00	\$387,341.45	\$387,341.45
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1959	2686	\$736.27	\$0.27	\$6,648.09	\$2.48	0	1.00	\$6,648.09	\$6,648.09
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1959	290076	\$82,942.09	\$0.29	\$748,918.27	\$2.58	0	2.00	\$748,918.27	\$748,918.27
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1959	13751	\$3,772.26	\$0.27	\$34,061.28	\$2.48	0	3.00	\$34,061.28	\$34,061.28
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1959	75555	\$41,498.68	\$0.55	\$374,708.67	\$4.96	0	4.00	\$374,708.67	\$374,708.67
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	1959	3815	\$2,092.66	\$0.55	\$18,895.50	\$4.95	0	6.00	\$18,895.50	\$18,895.50
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1959	7687	\$7,854.30	\$1.02	\$70,919.70	\$9.23	1	1.25	\$70,919.70	\$70,919.70
Minnesota Energy Resrcs	Gas	37600-Mains	186	Steel 10 in	1959	5465	\$11,991.85	\$2.19	\$108,279.35	\$19.81	1	10.00	\$108,279.35	\$108,279.35

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Minnesota Energy Resrcs	Gas	37600-Mains	187	Steel 12 in	1959	119	\$260.55	\$2.19	\$2,352.61	\$19.77	1	12.00	\$2,352.61	\$2,352.61
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1959	145993	\$126,991.30	\$0.87	\$1,146,656.70	\$7.85	1	2.00	\$1,146,656.70	\$1,146,656.70
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1959	43664	\$36,412.58	\$0.83	\$328,784.15	\$7.53	1	3.00	\$328,784.15	\$328,784.15
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1959	56875	\$145,484.17	\$2.56	\$1,313,636.48	\$23.10	1	4.00	\$1,313,636.48	\$1,313,636.48
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	1959	32671	\$146,515.36	\$4.48	\$1,322,947.51	\$40.49	1	6.00	\$1,322,947.51	\$1,322,947.51
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	1959	7736	\$14,771.71	\$1.91	\$133,379.85	\$17.24	1	8.00	\$133,379.85	\$133,379.85
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1960	429252	\$266,754.05	\$0.62	\$2,408,632.17	\$5.61	0	2.00	\$2,408,632.17	\$2,408,632.17
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1960	83534	\$55,331.82	\$0.66	\$499,613.80	\$5.98	0	3.00	\$499,613.80	\$499,613.80
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1960	147864	\$193,412.15	\$1.31	\$1,746,397.94	\$11.81	0	4.00	\$1,746,397.94	\$1,746,397.94
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	1960	2420	\$3,007.88	\$1.24	\$27,159.39	\$11.22	0	6.00	\$27,159.39	\$27,159.39
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1960	2799	\$5,497.31	\$1.96	\$49,637.48	\$17.73	1	1.25	\$49,637.48	\$49,637.48
Minnesota Energy Resrcs	Gas	37600-Mains	186	Steel 10 in	1960	3361	\$16,709.01	\$4.97	\$150,872.54	\$44.89	1	10.00	\$150,872.54	\$150,872.54
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1960	57846	\$114,305.03	\$1.98	\$1,032,107.18	\$17.84	1	2.00	\$1,032,107.18	\$1,032,107.18
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1960	6454	\$58,280.00	\$9.03	\$526,234.13	\$81.54	1	4.00	\$526,234.13	\$526,234.13
Minnesota Energy Resrcs	Gas	37600-Mains	174	Plastic 1 1/4 in	1961	236	\$59.01	\$0.25	\$532.83	\$2.26	0	1.25	\$532.83	\$532.83
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1961	3446	\$902.90	\$0.26	\$8,152.67	\$2.37	0	1.00	\$8,152.67	\$8,152.67
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1961	457135	\$115,842.05	\$0.25	\$1,045,985.58	\$2.29	0	2.00	\$1,045,985.58	\$1,045,985.58
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1961	33525	\$8,502.67	\$0.25	\$76,774.09	\$2.29	0	3.00	\$76,774.09	\$76,774.09
Minnesota Energy Resrcs	Gas	37600-Mains	178	Plastic 3/4 in	1961	5860	\$1,457.11	\$0.25	\$13,156.84	\$2.25	0	0.75	\$13,156.84	\$13,156.84
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1961	196187	\$100,521.07	\$0.51	\$907,646.11	\$4.63	0	4.00	\$907,646.11	\$907,646.11
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	1961	11028	\$4,994.58	\$0.45	\$45,098.13	\$4.09	0	6.00	\$45,098.13	\$45,098.13
Minnesota Energy Resrcs	Gas	37600-Mains	183	Steel 1 1/2 in	1961	102	\$80.52	\$0.79	\$727.05	\$7.13	1	1.50	\$727.05	\$727.05
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1961	42691	\$33,707.50	\$0.79	\$304,358.89	\$7.13	1	1.25	\$304,358.89	\$304,358.89
Minnesota Energy Resrcs	Gas	37600-Mains	185	Steel 1 in	1961	500	\$392.90	\$0.79	\$3,547.65	\$7.10	1	1.00	\$3,547.65	\$3,547.65
Minnesota Energy Resrcs	Gas	37600-Mains	190	Steel 2 1/2 in	1961	1	\$0.79	\$0.79	\$7.13	\$7.13	1	2.50	\$7.13	\$7.13
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1961	393983	\$309,398.04	\$0.79	\$2,793,682.34	\$7.09	1	2.00	\$2,793,682.34	\$2,793,682.34
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1961	94516	\$73,473.45	\$0.78	\$663,421.99	\$7.02	1	3.00	\$663,421.99	\$663,421.99
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1961	174784	\$372,226.96	\$2.13	\$3,360,990.51	\$19.23	1	4.00	\$3,360,990.51	\$3,360,990.51
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	1961	69235	\$281,514.31	\$4.07	\$2,541,908.62	\$36.71	1	6.00	\$2,541,908.62	\$2,541,908.62
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	1961	4509	\$8,974.70	\$1.99	\$81,036.27	\$17.97	1	8.00	\$81,036.27	\$81,036.27
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1962	31127	\$8,345.98	\$0.27	\$75,359.29	\$2.42	0	2.00	\$75,359.29	\$75,359.29
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1962	850	\$212.34	\$0.25	\$1,917.31	\$2.26	0	3.00	\$1,917.31	\$1,917.31
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1962	11095	\$5,532.81	\$0.50	\$49,958.01	\$4.50	0	4.00	\$49,958.01	\$49,958.01
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1962	10694	\$8,959.19	\$0.84	\$80,896.22	\$7.56	1	1.25	\$80,896.22	\$80,896.22
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1962	141048	\$110,590.19	\$0.78	\$998,564.40	\$7.08	1	2.00	\$998,564.40	\$998,564.40
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1962	31312	\$25,122.08	\$0.80	\$226,837.62	\$7.24	1	3.00	\$226,837.62	\$226,837.62
Minnesota Energy Resrcs	Gas	37600-Mains	194	Steel 3/4 in	1962	384	\$302.20	\$0.79	\$2,728.69	\$7.11	1	0.75	\$2,728.69	\$2,728.69
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1962	15666	\$33,304.93	\$2.13	\$300,723.91	\$19.20	1	4.00	\$300,723.91	\$300,723.91
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	1962	13353	\$33,605.98	\$2.52	\$303,442.23	\$22.72	1	6.00	\$303,442.23	\$303,442.23
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	1962	74	\$147.54	\$1.99	\$1,332.20	\$18.00	1	8.00	\$1,332.20	\$1,332.20
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1963	23602	\$5,667.80	\$0.24	\$50,435.19	\$2.14	0	2.00	\$50,435.19	\$50,435.19
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1963	338	\$81.71	\$0.24	\$727.10	\$2.15	0	3.00	\$727.10	\$727.10
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1963	4445	\$2,162.59	\$0.49	\$19,243.93	\$4.33	0	4.00	\$19,243.93	\$19,243.93
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1963	34604	\$25,427.46	\$0.73	\$226,267.55	\$6.54	1	1.25	\$226,267.55	\$226,267.55
Minnesota Energy Resrcs	Gas	37600-Mains	190	Steel 2 1/2 in	1963	166	\$127.10	\$0.77	\$1,131.01	\$6.81	1	2.50	\$1,131.01	\$1,131.01
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1963	123216	\$93,701.82	\$0.76	\$833,810.41	\$6.77	1	2.00	\$833,810.41	\$833,810.41
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1963	28218	\$20,344.19	\$0.72	\$181,033.80	\$6.42	1	3.00	\$181,033.80	\$181,033.80
Minnesota Energy Resrcs	Gas	37600-Mains	194	Steel 3/4 in	1963	1728	\$1,321.83	\$0.76	\$11,762.38	\$6.81	1	0.75	\$11,762.38	\$11,762.38
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1963	5550	\$12,087.94	\$2.18	\$107,565.15	\$19.38	1	4.00	\$107,565.15	\$107,565.15
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	1963	13864	\$46,974.16	\$3.39	\$418,001.94	\$30.15	1	6.00	\$418,001.94	\$418,001.94
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1964	410	\$177.03	\$0.43	\$1,552.81	\$3.79	0	1.00	\$1,552.81	\$1,552.81
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1964	174148	\$76,960.59	\$0.44	\$675,054.32	\$3.88	0	2.00	\$675,054.32	\$675,054.32
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1964	4653	\$4,452.30	\$0.96	\$39,053.02	\$8.39	0	4.00	\$39,053.02	\$39,053.02

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Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1964	1772	\$2,414.16	\$1.36	\$21,175.63	\$11.95	1	1.25	\$21,175.63	\$21,175.63
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1964	70312	\$95,305.98	\$1.36	\$835,969.57	\$11.89	1	2.00	\$835,969.57	\$835,969.57
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1964	18085	\$26,066.29	\$1.44	\$228,638.60	\$12.64	1	3.00	\$228,638.60	\$228,638.60
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1964	6867	\$23,610.40	\$3.44	\$207,096.94	\$30.16	1	4.00	\$207,096.94	\$207,096.94
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	1964	2992	\$21,093.65	\$7.05	\$185,021.44	\$61.84	1	6.00	\$185,021.44	\$185,021.44
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1965	173967	\$69,848.87	\$0.40	\$604,045.15	\$3.47	0	2.00	\$604,045.15	\$604,045.15
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1965	81	\$32.24	\$0.40	\$278.80	\$3.44	0	3.00	\$278.80	\$278.80
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1965	85247	\$68,185.54	\$0.80	\$589,660.87	\$6.92	0	4.00	\$589,660.87	\$589,660.87
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	1965	8236	\$6,584.41	\$0.80	\$56,941.24	\$6.91	0	6.00	\$56,941.24	\$56,941.24
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1965	939	\$635.84	\$0.68	\$5,498.67	\$5.86	1	1.25	\$5,498.67	\$5,498.67
Minnesota Energy Resrcs	Gas	37600-Mains	185	Steel 1 in	1965	23	\$29.96	\$1.30	\$259.09	\$11.26	1	1.00	\$259.09	\$259.09
Minnesota Energy Resrcs	Gas	37600-Mains	186	Steel 10 in	1965	1586	\$11,862.00	\$7.48	\$102,581.24	\$64.68	1	10.00	\$102,581.24	\$102,581.24
Minnesota Energy Resrcs	Gas	37600-Mains	187	Steel 12 in	1965	2820	\$24,297.92	\$8.62	\$210,125.68	\$74.51	1	12.00	\$210,125.68	\$210,125.68
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1965	58170	\$72,664.65	\$1.25	\$628,395.68	\$10.80	1	2.00	\$628,395.68	\$628,395.68
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1965	13879	\$17,614.05	\$1.27	\$152,324.32	\$10.98	1	3.00	\$152,324.32	\$152,324.32
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1965	133120	\$124,606.43	\$0.94	\$1,077,582.39	\$8.09	1	4.00	\$1,077,582.39	\$1,077,582.39
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	1965	10983	\$24,702.95	\$2.25	\$213,628.33	\$19.45	1	6.00	\$213,628.33	\$213,628.33
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	1965	3806	\$12,119.86	\$3.18	\$104,811.18	\$27.54	1	8.00	\$104,811.18	\$104,811.18
Minnesota Energy Resrcs	Gas	37600-Mains	174	Plastic 1 1/4 in	1966	207	\$1,316.04	\$6.36	\$11,069.16	\$53.47	0	1.25	\$11,069.16	\$11,069.16
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1966	8312	\$6,354.14	\$0.76	\$53,444.42	\$6.43	0	1.00	\$53,444.42	\$53,444.42
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1966	698649	\$379,428.77	\$0.54	\$3,191,359.74	\$4.57	0	2.00	\$3,191,359.74	\$3,191,359.74
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1966	4333	\$2,880.63	\$0.66	\$24,228.86	\$5.59	0	3.00	\$24,228.86	\$24,228.86
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1966	41585	\$46,592.46	\$1.12	\$391,887.28	\$9.42	0	4.00	\$391,887.28	\$391,887.28
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	1966	4082	\$4,386.76	\$1.07	\$36,896.86	\$9.04	0	6.00	\$36,896.86	\$36,896.86
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1966	861	\$1,461.65	\$1.70	\$12,293.88	\$14.28	1	1.25	\$12,293.88	\$12,293.88
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1966	63965	\$105,686.00	\$1.65	\$888,920.60	\$13.90	1	2.00	\$888,920.60	\$888,920.60
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1966	32316	\$53,129.51	\$1.64	\$446,870.13	\$13.83	1	3.00	\$446,870.13	\$446,870.13
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1966	40362	\$174,817.02	\$4.33	\$1,470,378.77	\$36.43	1	4.00	\$1,470,378.77	\$1,470,378.77
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	1966	6194	\$54,421.39	\$8.79	\$457,736.07	\$73.90	1	6.00	\$457,736.07	\$457,736.07
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	1966	203	\$8,413.56	\$41.45	\$70,766.11	\$348.60	1	8.00	\$70,766.11	\$70,766.11
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1967	94792	\$31,953.58	\$0.34	\$258,151.24	\$2.72	0	2.00	\$258,151.24	\$258,151.24
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1967	38474	\$13,849.30	\$0.36	\$111,887.75	\$2.91	0	3.00	\$111,887.75	\$111,887.75
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1967	219005	\$149,254.97	\$0.68	\$1,205,823.04	\$5.51	0	4.00	\$1,205,823.04	\$1,205,823.04
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	1967	5872	\$4,893.62	\$0.83	\$39,535.29	\$6.73	0	6.00	\$39,535.29	\$39,535.29
Minnesota Energy Resrcs	Gas	37600-Mains	183	Steel 1 1/2 in	1967	1601	\$2,141.10	\$1.34	\$17,297.83	\$10.80	1	1.50	\$17,297.83	\$17,297.83
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1967	2992	\$4,327.23	\$1.45	\$34,959.46	\$11.68	1	1.25	\$34,959.46	\$34,959.46
Minnesota Energy Resrcs	Gas	37600-Mains	185	Steel 1 in	1967	782	\$2,020.53	\$2.58	\$16,323.75	\$20.87	1	1.00	\$16,323.75	\$16,323.75
Minnesota Energy Resrcs	Gas	37600-Mains	186	Steel 10 in	1967	35306	\$92,159.64	\$2.61	\$744,552.87	\$21.09	1	10.00	\$744,552.87	\$744,552.87
Minnesota Energy Resrcs	Gas	37600-Mains	187	Steel 12 in	1967	13214	\$18,560.75	\$1.40	\$149,951.32	\$11.35	1	12.00	\$149,951.32	\$149,951.32
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1967	354167	\$379,408.51	\$1.07	\$3,065,221.37	\$8.65	1	2.00	\$3,065,221.37	\$3,065,221.37
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1967	2504	\$2,897.80	\$1.16	\$23,411.14	\$9.35	1	3.00	\$23,411.14	\$23,411.14
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1968	220	\$37.22	\$0.17	\$292.99	\$1.33	0	1.00	\$292.99	\$292.99
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1968	55238	\$9,496.62	\$0.17	\$74,755.46	\$1.35	0	2.00	\$74,755.46	\$74,755.46
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1968	2130	\$364.16	\$0.17	\$2,866.59	\$1.35	0	3.00	\$2,866.59	\$2,866.59
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1968	38102	\$13,185.17	\$0.35	\$103,790.94	\$2.72	0	4.00	\$103,790.94	\$103,790.94
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1968	144	\$284.64	\$1.98	\$2,240.63	\$15.56	1	1.25	\$2,240.63	\$2,240.63
Minnesota Energy Resrcs	Gas	37600-Mains	187	Steel 12 in	1968	3651	\$4,992.97	\$1.37	\$39,303.63	\$10.77	1	12.00	\$39,303.63	\$39,303.63
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1968	61550	\$34,133.36	\$0.55	\$268,690.82	\$4.37	1	2.00	\$268,690.82	\$268,690.82
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1968	162716	\$89,463.07	\$0.55	\$704,234.92	\$4.33	1	3.00	\$704,234.92	\$704,234.92
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1968	116784	\$181,636.28	\$1.56	\$1,429,803.49	\$12.24	1	4.00	\$1,429,803.49	\$1,429,803.49
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	1968	20958	\$59,561.80	\$2.84	\$468,858.29	\$22.37	1	6.00	\$468,858.29	\$468,858.29
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	1968	27173	\$34,776.40	\$1.28	\$273,752.70	\$10.07	1	8.00	\$273,752.70	\$273,752.70
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1969	1207	\$251.89	\$0.21	\$1,886.11	\$1.56	0	1.00	\$1,886.11	\$1,886.11

Table 1
 FERC Account 376 - Gas Distribution Mains
 Detailed Data for Minimum System Study
 Based on Historical Year Ending December 31, 2021

Company	Product	Account	Retirement Unit Code	Retirement Unit Description	Year	PowerPlant Quantity	Actual Total Cost	Actual Unit Cost	Escalated Total Cost	Escalated Unit Cost	Material	Size	Cost (Current or Historic)	Cost (Current or Historic)
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1969	129713	\$42,107.76	\$0.32	\$315,294.74	\$2.43	0	2.00	\$315,294.74	\$315,294.74
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1969	57615	\$18,195.02	\$0.32	\$136,240.76	\$2.36	0	3.00	\$136,240.76	\$136,240.76
Minnesota Energy Resrcs	Gas	37600-Mains	178	Plastic 3/4 in	1969	62	\$128.41	\$2.07	\$961.51	\$15.51	0	0.75	\$961.51	\$961.51
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1969	46405	\$30,619.39	\$0.66	\$229,272.02	\$4.94	0	4.00	\$229,272.02	\$229,272.02
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	1969	673	\$871.56	\$1.30	\$6,526.08	\$9.70	0	6.00	\$6,526.08	\$6,526.08
Minnesota Energy Resrcs	Gas	37600-Mains	183	Steel 1 1/2 in	1969	74	\$73.74	\$1.00	\$552.15	\$7.46	1	1.50	\$552.15	\$552.15
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1969	17492	\$17,238.33	\$0.99	\$129,077.25	\$7.38	1	1.25	\$129,077.25	\$129,077.25
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1969	250412	\$249,588.14	\$1.00	\$1,868,867.32	\$7.46	1	2.00	\$1,868,867.32	\$1,868,867.32
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1969	69979	\$69,797.41	\$1.00	\$522,629.43	\$7.47	1	3.00	\$522,629.43	\$522,629.43
Minnesota Energy Resrcs	Gas	37600-Mains	194	Steel 3/4 in	1969	267	\$266.00	\$1.00	\$1,991.76	\$7.46	1	0.75	\$1,991.76	\$1,991.76
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1969	28003	\$78,010.70	\$2.79	\$584,128.90	\$20.86	1	4.00	\$584,128.90	\$584,128.90
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	1969	9778	\$49,817.58	\$5.09	\$373,024.32	\$38.15	1	6.00	\$373,024.32	\$373,024.32
Minnesota Energy Resrcs	Gas	37600-Mains	174	Plastic 1 1/4 in	1970	47569	\$31,658.06	\$0.67	\$226,023.85	\$4.75	0	1.25	\$226,023.85	\$226,023.85
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1970	3715	\$1,334.67	\$0.36	\$9,528.93	\$2.56	0	1.00	\$9,528.93	\$9,528.93
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1970	425461	\$146,405.75	\$0.34	\$1,045,268.97	\$2.46	0	2.00	\$1,045,268.97	\$1,045,268.97
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1970	47160	\$14,820.17	\$0.31	\$105,809.14	\$2.24	0	3.00	\$105,809.14	\$105,809.14
Minnesota Energy Resrcs	Gas	37600-Mains	178	Plastic 3/4 in	1970	331	\$105.31	\$0.32	\$751.86	\$2.27	0	0.75	\$751.86	\$751.86
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1970	94005	\$82,140.09	\$0.87	\$586,442.04	\$6.24	0	4.00	\$586,442.04	\$586,442.04
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	1970	1545	\$1,857.62	\$1.20	\$13,262.55	\$8.58	0	6.00	\$13,262.55	\$13,262.55
Minnesota Energy Resrcs	Gas	37600-Mains	183	Steel 1 1/2 in	1970	5057	\$5,128.73	\$1.01	\$36,616.75	\$7.24	1	1.50	\$36,616.75	\$36,616.75
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1970	46389	\$47,708.79	\$1.03	\$340,618.61	\$7.34	1	1.25	\$340,618.61	\$340,618.61
Minnesota Energy Resrcs	Gas	37600-Mains	185	Steel 1 in	1970	2543	\$14,790.07	\$5.82	\$105,594.21	\$41.52	1	1.00	\$105,594.21	\$105,594.21
Minnesota Energy Resrcs	Gas	37600-Mains	186	Steel 10 in	1970	5489	\$14,065.00	\$2.56	\$100,417.55	\$18.29	1	10.00	\$100,417.55	\$100,417.55
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1970	183291	\$185,641.06	\$1.01	\$1,325,390.83	\$7.23	1	2.00	\$1,325,390.83	\$1,325,390.83
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1970	55916	\$64,566.24	\$1.15	\$460,972.95	\$8.24	1	3.00	\$460,972.95	\$460,972.95
Minnesota Energy Resrcs	Gas	37600-Mains	194	Steel 3/4 in	1970	817	\$661.70	\$0.81	\$4,724.24	\$5.78	1	0.75	\$4,724.24	\$4,724.24
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1970	112635	\$465,782.37	\$4.14	\$3,325,469.48	\$29.52	1	4.00	\$3,325,469.48	\$3,325,469.48
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	1970	30084	\$141,148.39	\$4.69	\$1,007,733.87	\$33.50	1	6.00	\$1,007,733.87	\$1,007,733.87
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	1970	34527	\$95,579.63	\$2.77	\$682,394.09	\$19.76	1	8.00	\$682,394.09	\$682,394.09
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1971	1711	\$712.67	\$0.42	\$4,756.30	\$2.78	0	1.00	\$4,756.30	\$4,756.30
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1971	319782	\$132,570.29	\$0.41	\$884,762.59	\$2.77	0	2.00	\$884,762.59	\$884,762.59
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1971	5316	\$2,214.54	\$0.42	\$14,779.65	\$2.78	0	3.00	\$14,779.65	\$14,779.65
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1971	113456	\$94,495.51	\$0.83	\$630,654.82	\$5.56	0	4.00	\$630,654.82	\$630,654.82
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	1971	11055	\$9,207.47	\$0.83	\$61,449.85	\$5.56	0	6.00	\$61,449.85	\$61,449.85
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1971	365	\$481.16	\$1.32	\$3,211.22	\$8.80	1	1.25	\$3,211.22	\$3,211.22
Minnesota Energy Resrcs	Gas	37600-Mains	185	Steel 1 in	1971	183	\$241.49	\$1.32	\$1,611.68	\$8.81	1	1.00	\$1,611.68	\$1,611.68
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1971	113369	\$146,352.01	\$1.29	\$976,740.60	\$8.62	1	2.00	\$976,740.60	\$976,740.60
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1971	24586	\$32,582.11	\$1.33	\$217,450.17	\$8.84	1	3.00	\$217,450.17	\$217,450.17
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1971	27282	\$101,651.36	\$3.73	\$678,412.34	\$24.87	1	4.00	\$678,412.34	\$678,412.34
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	1971	5800	\$39,493.04	\$6.81	\$263,573.12	\$45.44	1	6.00	\$263,573.12	\$263,573.12
Minnesota Energy Resrcs	Gas	37600-Mains	174	Plastic 1 1/4 in	1972	59	\$20.88	\$0.35	\$133.55	\$2.26	0	1.25	\$133.55	\$133.55
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1972	10906	\$3,779.79	\$0.35	\$24,174.90	\$2.22	0	1.00	\$24,174.90	\$24,174.90
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1972	205947	\$71,923.85	\$0.35	\$460,012.98	\$2.23	0	2.00	\$460,012.98	\$460,012.98
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1972	9870	\$3,423.71	\$0.35	\$21,897.49	\$2.22	0	3.00	\$21,897.49	\$21,897.49
Minnesota Energy Resrcs	Gas	37600-Mains	178	Plastic 3/4 in	1972	2236	\$775.31	\$0.35	\$4,958.76	\$2.22	0	0.75	\$4,958.76	\$4,958.76
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1972	61344	\$42,512.92	\$0.69	\$271,905.54	\$4.43	0	4.00	\$271,905.54	\$271,905.54
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	1972	11099	\$7,692.26	\$0.69	\$49,198.41	\$4.43	0	6.00	\$49,198.41	\$49,198.41
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1972	215	\$236.04	\$1.10	\$1,509.67	\$7.02	1	1.25	\$1,509.67	\$1,509.67
Minnesota Energy Resrcs	Gas	37600-Mains	185	Steel 1 in	1972	161	\$177.03	\$1.10	\$1,132.25	\$7.03	1	1.00	\$1,132.25	\$1,132.25
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1972	110430	\$121,114.95	\$1.10	\$774,631.06	\$7.01	1	2.00	\$774,631.06	\$774,631.06
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1972	14657	\$16,048.06	\$1.09	\$102,640.72	\$7.00	1	3.00	\$102,640.72	\$102,640.72
Minnesota Energy Resrcs	Gas	37600-Mains	194	Steel 3/4 in	1972	1566	\$1,714.02	\$1.09	\$10,962.58	\$7.00	1	0.75	\$10,962.58	\$10,962.58
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1972	38837	\$119,013.63	\$3.06	\$761,191.33	\$19.60	1	4.00	\$761,191.33	\$761,191.33

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 Detailed Data for Minimum System Study
 Based on Historical Year Ending December 31, 2021

Company	Product	Account	Retirement Unit Code	Retirement Unit Description	Year	PowerPlant Quantity	Actual Total Cost	Actual Unit Cost	Escalated Total Cost	Escalated Unit Cost	Material	Size	Cost (Current or Historic)	Cost (Current or Historic)
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	1972	5890	\$33,728.79	\$5.73	\$215,723.72	\$36.63	1	6.00	\$215,723.72	\$215,723.72
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1973	522	\$124.37	\$0.24	\$763.63	\$1.46	0	1.00	\$763.63	\$763.63
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1973	147765	\$35,002.09	\$0.24	\$214,912.84	\$1.45	0	2.00	\$214,912.84	\$214,912.84
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1973	3413	\$812.55	\$0.24	\$4,989.06	\$1.46	0	3.00	\$4,989.06	\$4,989.06
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1973	45733	\$21,797.90	\$0.48	\$133,839.10	\$2.93	0	4.00	\$133,839.10	\$133,839.10
Minnesota Energy Resrcs	Gas	37600-Mains	183	Steel 1 1/2 in	1973	141	\$105.31	\$0.75	\$646.60	\$4.59	1	1.50	\$646.60	\$646.60
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1973	2018	\$1,518.59	\$0.75	\$9,324.12	\$4.62	1	1.25	\$9,324.12	\$9,324.12
Minnesota Energy Resrcs	Gas	37600-Mains	185	Steel 1 in	1973	91	\$94.42	\$1.04	\$579.74	\$6.37	1	1.00	\$579.74	\$579.74
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1973	180017	\$135,434.36	\$0.75	\$831,566.96	\$4.62	1	2.00	\$831,566.96	\$831,566.96
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1973	20625	\$15,516.67	\$0.75	\$95,272.34	\$4.62	1	3.00	\$95,272.34	\$95,272.34
Minnesota Energy Resrcs	Gas	37600-Mains	194	Steel 3/4 in	1973	786	\$590.90	\$0.75	\$3,628.12	\$4.62	1	0.75	\$3,628.12	\$3,628.12
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1973	102344	\$210,682.75	\$2.06	\$1,293,592.06	\$12.64	1	4.00	\$1,293,592.06	\$1,293,592.06
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	1973	20268	\$75,509.37	\$3.73	\$463,627.52	\$22.87	1	6.00	\$463,627.52	\$463,627.52
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1974	653	\$215.29	\$0.33	\$1,180.24	\$1.81	0	1.00	\$1,180.24	\$1,180.24
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1974	153825	\$51,454.30	\$0.33	\$282,079.80	\$1.83	0	2.00	\$282,079.80	\$282,079.80
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1974	746	\$245.54	\$0.33	\$1,346.08	\$1.80	0	3.00	\$1,346.08	\$1,346.08
Minnesota Energy Resrcs	Gas	37600-Mains	178	Plastic 3/4 in	1974	58	\$18.82	\$0.32	\$103.18	\$1.78	0	0.75	\$103.18	\$103.18
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1974	59208	\$39,585.47	\$0.67	\$217,013.19	\$3.67	0	4.00	\$217,013.19	\$217,013.19
Minnesota Energy Resrcs	Gas	37600-Mains	183	Steel 1 1/2 in	1974	747	\$777.12	\$1.04	\$4,260.28	\$5.70	1	1.50	\$4,260.28	\$4,260.28
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1974	10120	\$11,027.77	\$1.09	\$60,455.80	\$5.97	1	1.25	\$60,455.80	\$60,455.80
Minnesota Energy Resrcs	Gas	37600-Mains	190	Steel 2 1/2 in	1974	849	\$883.38	\$1.04	\$4,842.81	\$5.70	1	2.50	\$4,842.81	\$4,842.81
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1974	39651	\$44,699.35	\$1.13	\$245,048.19	\$6.18	1	2.00	\$245,048.19	\$245,048.19
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1974	8670	\$9,164.35	\$1.06	\$50,240.28	\$5.79	1	3.00	\$50,240.28	\$50,240.28
Minnesota Energy Resrcs	Gas	37600-Mains	194	Steel 3/4 in	1974	69	\$70.81	\$1.03	\$388.19	\$5.63	1	0.75	\$388.19	\$388.19
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1974	6072	\$16,065.83	\$2.65	\$88,075.18	\$14.51	1	4.00	\$88,075.18	\$88,075.18
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	1974	14245	\$76,708.38	\$5.38	\$420,526.29	\$29.52	1	6.00	\$420,526.29	\$420,526.29
Minnesota Energy Resrcs	Gas	37600-Mains	174	Plastic 1 1/4 in	1975	5034	\$11,774.72	\$2.34	\$56,926.60	\$11.31	0	1.25	\$56,926.60	\$56,926.60
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1975	1429	\$358.90	\$0.25	\$1,735.15	\$1.21	0	1.00	\$1,735.15	\$1,735.15
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1975	98617	\$53,293.30	\$0.54	\$257,654.23	\$2.61	0	2.00	\$257,654.23	\$257,654.23
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1975	21714	\$26,756.99	\$1.23	\$129,360.58	\$5.96	0	4.00	\$129,360.58	\$129,360.58
Minnesota Energy Resrcs	Gas	37600-Mains	183	Steel 1 1/2 in	1975	279	\$189.13	\$0.68	\$914.38	\$3.28	1	1.50	\$914.38	\$914.38
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1975	16136	\$10,305.30	\$0.64	\$49,822.47	\$3.09	1	1.25	\$49,822.47	\$49,822.47
Minnesota Energy Resrcs	Gas	37600-Mains	185	Steel 1 in	1975	1037	\$1,742.96	\$1.68	\$8,426.59	\$8.13	1	1.00	\$8,426.59	\$8,426.59
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1975	30317	\$25,994.19	\$0.86	\$125,672.69	\$4.15	1	2.00	\$125,672.69	\$125,672.69
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1975	7693	\$4,619.80	\$0.60	\$22,335.10	\$2.90	1	3.00	\$22,335.10	\$22,335.10
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1975	97878	\$190,606.52	\$1.95	\$921,515.00	\$9.41	1	4.00	\$921,515.00	\$921,515.00
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	1975	32091	\$97,083.39	\$3.03	\$469,363.80	\$14.63	1	6.00	\$469,363.80	\$469,363.80
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1976	1559	\$551.97	\$0.35	\$2,510.44	\$1.61	0	1.00	\$2,510.44	\$2,510.44
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1976	107571	\$38,223.77	\$0.36	\$173,847.37	\$1.62	0	2.00	\$173,847.37	\$173,847.37
Minnesota Energy Resrcs	Gas	37600-Mains	178	Plastic 3/4 in	1976	631	\$223.33	\$0.35	\$1,015.74	\$1.61	0	0.75	\$1,015.74	\$1,015.74
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1976	53494	\$36,728.81	\$0.69	\$167,048.08	\$3.12	0	4.00	\$167,048.08	\$167,048.08
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1976	607	\$935.38	\$1.54	\$4,254.25	\$7.01	1	1.25	\$4,254.25	\$4,254.25
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1976	18039	\$20,599.87	\$1.14	\$93,691.25	\$5.19	1	2.00	\$93,691.25	\$93,691.25
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1976	17677	\$19,677.77	\$1.11	\$89,497.41	\$5.06	1	3.00	\$89,497.41	\$89,497.41
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1976	4894	\$17,264.27	\$3.53	\$78,520.45	\$16.04	1	4.00	\$78,520.45	\$78,520.45
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	1976	4577	\$26,479.98	\$5.79	\$120,434.88	\$26.31	1	6.00	\$120,434.88	\$120,434.88
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1977	1689	\$167,648.72	\$99.26	\$714,835.52	\$423.23	1	2.00	\$714,835.52	\$714,835.52
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1978	28557	\$399,566.97	\$13.99	\$1,582,800.71	\$55.43	0	2.00	\$1,582,800.71	\$1,582,800.71
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1978	2444	\$35,281.25	\$14.44	\$139,759.28	\$57.18	0	3.00	\$139,759.28	\$139,759.28
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1978	4442	\$36,192.96	\$8.15	\$143,370.83	\$32.28	0	4.00	\$143,370.83	\$143,370.83
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1978	412	\$18,607.59	\$45.16	\$73,710.06	\$178.91	1	2.00	\$73,710.06	\$73,710.06
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1978	215	\$9,713.95	\$45.18	\$38,479.78	\$178.98	1	3.00	\$38,479.78	\$38,479.78
Minnesota Energy Resrcs	Gas	37600-Mains	194	Steel 3/4 in	1978	3	\$135.22	\$45.07	\$535.64	\$178.55	1	0.75	\$535.64	\$535.64

Table 1
 FERC Account 376 - Gas Distribution Mains
 Detailed Data for Minimum System Study
 Based on Historical Year Ending December 31, 2021

Company	Product	Account	Retirement Unit Code	Retirement Unit Description	Year	PowerPlant Quantity	Actual Total Cost	Actual Unit Cost	Escalated Total Cost	Escalated Unit Cost	Material	Size	Cost (Current or Historic)	Cost (Current or Historic)
Minnesota Energy Resrcs	Gas	37600-Mains	174	Plastic 1 1/4 in	1979	155229	\$173,620.63	\$1.12	\$630,787.40	\$4.06	0	1.25	\$630,787.40	\$630,787.40
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1979	7036	\$9,904.94	\$1.41	\$35,985.97	\$5.11	0	1.00	\$35,985.97	\$35,985.97
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1979	601669	\$1,209,046.28	\$2.01	\$4,392,629.62	\$7.30	0	2.00	\$4,392,629.62	\$4,392,629.62
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1979	36079	\$45,617.69	\$1.26	\$165,735.26	\$4.59	0	3.00	\$165,735.26	\$165,735.26
Minnesota Energy Resrcs	Gas	37600-Mains	178	Plastic 3/4 in	1979	14695	\$67,415.37	\$4.59	\$244,929.21	\$16.67	0	0.75	\$244,929.21	\$244,929.21
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1979	82671	\$238,233.24	\$2.88	\$865,533.75	\$10.47	0	4.00	\$865,533.75	\$865,533.75
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	1979	4923	\$9,973.45	\$2.03	\$36,234.89	\$7.36	0	6.00	\$36,234.89	\$36,234.89
Minnesota Energy Resrcs	Gas	37600-Mains	183	Steel 1 1/2 in	1979	95624	\$308,158.19	\$3.22	\$1,119,580.65	\$11.71	1	1.50	\$1,119,580.65	\$1,119,580.65
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1979	26550	\$82,262.15	\$3.10	\$298,869.63	\$11.26	1	1.25	\$298,869.63	\$298,869.63
Minnesota Energy Resrcs	Gas	37600-Mains	185	Steel 1 in	1979	7122	\$24,196.74	\$3.40	\$87,910.03	\$12.34	1	1.00	\$87,910.03	\$87,910.03
Minnesota Energy Resrcs	Gas	37600-Mains	190	Steel 2 1/2 in	1979	94	\$299.33	\$3.18	\$1,087.51	\$11.57	1	2.50	\$1,087.51	\$1,087.51
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1979	240629	\$948,744.87	\$3.94	\$3,446,919.18	\$14.32	1	2.00	\$3,446,919.18	\$3,446,919.18
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1979	119816	\$380,201.94	\$3.17	\$1,381,325.38	\$11.53	1	3.00	\$1,381,325.38	\$1,381,325.38
Minnesota Energy Resrcs	Gas	37600-Mains	194	Steel 3/4 in	1979	1183	\$9,748.89	\$8.24	\$35,419.04	\$29.94	1	0.75	\$35,419.04	\$35,419.04
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1979	203433	\$1,595,446.18	\$7.84	\$5,796,473.09	\$28.49	1	4.00	\$5,796,473.09	\$5,796,473.09
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	1979	21841	\$364,624.60	\$16.69	\$1,324,730.79	\$60.65	1	6.00	\$1,324,730.79	\$1,324,730.79
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	1979	219146	\$1,776,777.31	\$8.11	\$6,455,273.78	\$29.46	1	8.00	\$6,455,273.78	\$6,455,273.78
Minnesota Energy Resrcs	Gas	37600-Mains	174	Plastic 1 1/4 in	1980	10715	\$26,009.27	\$2.43	\$85,399.43	\$7.97	0	1.25	\$85,399.43	\$85,399.43
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1980	116175	\$650,263.28	\$5.60	\$2,135,089.11	\$18.38	0	2.00	\$2,135,089.11	\$2,135,089.11
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1980	10781	\$88,603.50	\$8.22	\$290,922.73	\$26.98	0	3.00	\$290,922.73	\$290,922.73
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1980	2078	\$78,173.29	\$37.62	\$256,675.92	\$123.52	0	4.00	\$256,675.92	\$256,675.92
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	1980	4550	\$85,188.13	\$18.72	\$279,708.62	\$61.47	0	6.00	\$279,708.62	\$279,708.62
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1980	2842	\$110,293.17	\$38.81	\$362,139.06	\$127.42	1	2.00	\$362,139.06	\$362,139.06
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1980	11	\$450.88	\$40.99	\$1,480.43	\$134.58	1	3.00	\$1,480.43	\$1,480.43
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1980	5726	\$798,288.73	\$139.41	\$2,621,119.13	\$457.76	1	4.00	\$2,621,119.13	\$2,621,119.13
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	1980	411	\$92,869.71	\$225.96	\$304,930.50	\$741.92	1	6.00	\$304,930.50	\$304,930.50
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	1980	30	\$368.77	\$12.29	\$1,210.83	\$40.36	1	8.00	\$1,210.83	\$1,210.83
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1981	30468	\$451,541.33	\$14.82	\$1,359,050.91	\$44.61	0	2.00	\$1,359,050.91	\$1,359,050.91
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1981	13563	\$32,443.08	\$2.39	\$97,647.32	\$7.20	0	3.00	\$97,647.32	\$97,647.32
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1981	21634	\$406,356.07	\$18.78	\$1,223,052.10	\$56.53	0	4.00	\$1,223,052.10	\$1,223,052.10
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	1981	1483	\$4,065.95	\$2.74	\$12,237.71	\$8.25	0	6.00	\$12,237.71	\$12,237.71
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1981	16772	\$75,084.44	\$4.48	\$225,989.45	\$13.47	1	1.25	\$225,989.45	\$225,989.45
Minnesota Energy Resrcs	Gas	37600-Mains	185	Steel 1 in	1981	2888	\$10,243.08	\$3.55	\$30,829.67	\$10.68	1	1.00	\$30,829.67	\$30,829.67
Minnesota Energy Resrcs	Gas	37600-Mains	186	Steel 10 in	1981	84	\$921.19	\$10.97	\$2,772.60	\$33.01	1	10.00	\$2,772.60	\$2,772.60
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1981	22549	\$214,089.31	\$9.49	\$644,366.84	\$28.58	1	2.00	\$644,366.84	\$644,366.84
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1981	348	\$27,851.34	\$80.03	\$83,827.08	\$240.88	1	3.00	\$83,827.08	\$83,827.08
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1981	1851	\$413,770.39	\$223.54	\$1,245,367.75	\$672.81	1	4.00	\$1,245,367.75	\$1,245,367.75
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1982	18013	\$606,327.88	\$33.66	\$1,692,205.99	\$93.94	0	2.00	\$1,692,205.99	\$1,692,205.99
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1982	372	\$12,229.10	\$32.87	\$34,130.30	\$91.75	0	3.00	\$34,130.30	\$34,130.30
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1982	5052	\$326,592.10	\$64.65	\$911,488.85	\$180.42	0	4.00	\$911,488.85	\$911,488.85
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1982	30127	\$61,069.63	\$2.03	\$170,439.77	\$5.66	1	2.00	\$170,439.77	\$170,439.77
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1982	14409	\$24,774.27	\$1.72	\$69,142.74	\$4.80	1	3.00	\$69,142.74	\$69,142.74
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1982	14402	\$259,058.97	\$17.99	\$723,010.03	\$50.20	1	4.00	\$723,010.03	\$723,010.03
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	1982	9400	\$83,104.87	\$8.84	\$231,938.14	\$24.67	1	6.00	\$231,938.14	\$231,938.14
Minnesota Energy Resrcs	Gas	37600-Mains	174	Plastic 1 1/4 in	1983	1468	\$2,384.00	\$1.62	\$6,420.08	\$4.37	0	1.25	\$6,420.08	\$6,420.08
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1983	308	\$292.21	\$0.95	\$786.92	\$2.55	0	1.00	\$786.92	\$786.92
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1983	22147	\$663,507.66	\$29.96	\$1,786,814.41	\$80.68	0	2.00	\$1,786,814.41	\$1,786,814.41
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1983	162	\$6,526.61	\$40.29	\$17,576.05	\$108.49	0	3.00	\$17,576.05	\$17,576.05
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1983	2010	\$149,330.59	\$74.29	\$402,144.66	\$200.07	0	4.00	\$402,144.66	\$402,144.66
Minnesota Energy Resrcs	Gas	37600-Mains	185	Steel 1 in	1983	224	\$669.95	\$2.99	\$1,804.16	\$8.05	1	1.00	\$1,804.16	\$1,804.16
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1983	5944	\$159,081.88	\$26.76	\$428,404.71	\$72.07	1	2.00	\$428,404.71	\$428,404.71
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1983	52	\$156.80	\$3.02	\$422.26	\$8.12	1	3.00	\$422.26	\$422.26
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1983	3173	\$176,947.55	\$55.77	\$476,516.65	\$150.18	1	4.00	\$476,516.65	\$476,516.65

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Company	Product	Account	Retirement Unit Code	Retirement Unit Description	Year	PowerPlant Quantity	Actual Total Cost	Actual Unit Cost	Escalated Total Cost	Escalated Unit Cost	Material	Size	Cost (Current or Historic)	Cost (Current or Historic)
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	1983	18	\$136.84	\$7.60	\$368.50	\$20.47	1	8.00	\$368.50	\$368.50
Minnesota Energy Resrcs	Gas	37600-Mains	174	Plastic 1 1/4 in	1984	2801	\$3,925.05	\$1.40	\$10,343.26	\$3.69	0	1.25	\$10,343.26	\$10,343.26
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1984	30792	\$992,887.99	\$32.24	\$2,616,451.63	\$84.97	0	2.00	\$2,616,451.63	\$2,616,451.63
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1984	891	\$110,244.39	\$123.73	\$290,515.26	\$326.06	0	3.00	\$290,515.26	\$290,515.26
Minnesota Energy Resrcs	Gas	37600-Mains	178	Plastic 3/4 in	1984	824	\$3,645.44	\$4.42	\$9,606.44	\$11.66	0	0.75	\$9,606.44	\$9,606.44
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1984	25791	\$60,090.29	\$2.33	\$158,349.52	\$6.14	0	4.00	\$158,349.52	\$158,349.52
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1984	2250	\$7,369.49	\$3.28	\$19,420.03	\$8.63	1	1.25	\$19,420.03	\$19,420.03
Minnesota Energy Resrcs	Gas	37600-Mains	185	Steel 1 in	1984	7445	\$29,007.16	\$3.90	\$76,439.47	\$10.27	1	1.00	\$76,439.47	\$76,439.47
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1984	22159	\$161,238.59	\$7.28	\$424,894.81	\$19.17	1	2.00	\$424,894.81	\$424,894.81
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1984	3794	\$14,781.60	\$3.90	\$38,952.37	\$10.27	1	3.00	\$38,952.37	\$38,952.37
Minnesota Energy Resrcs	Gas	37600-Mains	194	Steel 3/4 in	1984	253	\$26,656.90	\$105.36	\$70,246.08	\$277.65	1	0.75	\$70,246.08	\$70,246.08
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1984	6232	\$66,195.89	\$10.62	\$174,438.95	\$27.99	1	4.00	\$174,438.95	\$174,438.95
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	1984	1123	\$22,638.77	\$20.16	\$59,657.53	\$53.12	1	6.00	\$59,657.53	\$59,657.53
Minnesota Energy Resrcs	Gas	37600-Mains	174	Plastic 1 1/4 in	1985	37402	\$40,501.19	\$1.08	\$105,820.13	\$2.83	0	1.25	\$105,820.13	\$105,820.13
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1985	3593	\$735.83	\$0.20	\$1,922.55	\$0.54	0	1.00	\$1,922.55	\$1,922.55
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1985	245880	\$532,059.91	\$2.16	\$1,390,148.01	\$5.65	0	2.00	\$1,390,148.01	\$1,390,148.01
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1985	18450	\$153,957.58	\$8.34	\$402,255.10	\$21.80	0	3.00	\$402,255.10	\$402,255.10
Minnesota Energy Resrcs	Gas	37600-Mains	178	Plastic 3/4 in	1985	1551	\$3,873.51	\$2.50	\$10,120.57	\$6.53	0	0.75	\$10,120.57	\$10,120.57
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1985	78669	\$153,797.96	\$1.96	\$401,838.08	\$5.11	0	4.00	\$401,838.08	\$401,838.08
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	1985	321	\$687.75	\$2.14	\$1,796.93	\$5.60	0	6.00	\$1,796.93	\$1,796.93
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1985	19104	\$58,797.65	\$3.08	\$153,624.50	\$8.04	1	1.25	\$153,624.50	\$153,624.50
Minnesota Energy Resrcs	Gas	37600-Mains	185	Steel 1 in	1985	687	\$2,584.01	\$3.76	\$6,751.42	\$9.83	1	1.00	\$6,751.42	\$6,751.42
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1985	19543	\$69,037.56	\$3.53	\$180,378.99	\$9.23	1	2.00	\$180,378.99	\$180,378.99
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1985	1018	\$2,968.38	\$2.92	\$7,755.68	\$7.62	1	3.00	\$7,755.68	\$7,755.68
Minnesota Energy Resrcs	Gas	37600-Mains	194	Steel 3/4 in	1985	868	\$6,032.98	\$6.95	\$15,762.76	\$18.16	1	0.75	\$15,762.76	\$15,762.76
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1985	10203	\$528,985.92	\$51.85	\$1,382,116.38	\$135.46	1	4.00	\$1,382,116.38	\$1,382,116.38
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	1985	14460	\$218,045.89	\$15.08	\$569,702.88	\$39.40	1	6.00	\$569,702.88	\$569,702.88
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	1985	4591	\$34,415.55	\$7.50	\$89,919.78	\$19.59	1	8.00	\$89,919.78	\$89,919.78
Minnesota Energy Resrcs	Gas	37600-Mains	174	Plastic 1 1/4 in	1986	21257	\$75,087.72	\$3.53	\$192,903.18	\$9.07	0	1.25	\$192,903.18	\$192,903.18
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1986	380	\$1,289.99	\$3.39	\$3,314.03	\$8.72	0	1.00	\$3,314.03	\$3,314.03
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1986	102523	\$1,096,573.04	\$10.70	\$2,817,137.44	\$27.48	0	2.00	\$2,817,137.44	\$2,817,137.44
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1986	612	\$38,940.75	\$63.63	\$100,040.25	\$163.46	0	3.00	\$100,040.25	\$100,040.25
Minnesota Energy Resrcs	Gas	37600-Mains	178	Plastic 3/4 in	1986	2322	\$12,496.03	\$5.38	\$32,102.77	\$13.83	0	0.75	\$32,102.77	\$32,102.77
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1986	6807	\$46,473.94	\$6.83	\$119,393.30	\$17.54	0	4.00	\$119,393.30	\$119,393.30
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1986	2	\$114.03	\$57.02	\$292.95	\$146.48	1	2.00	\$292.95	\$292.95
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1986	512	\$287,395.14	\$561.32	\$738,328.94	\$1,442.05	1	4.00	\$738,328.94	\$738,328.94
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1987	227	\$13,498.53	\$59.46	\$33,691.46	\$148.42	0	1.00	\$33,691.46	\$33,691.46
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1987	20394	\$904,798.04	\$44.37	\$2,258,317.05	\$110.73	0	2.00	\$2,258,317.05	\$2,258,317.05
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1987	10117	\$18,105.65	\$1.79	\$45,190.53	\$4.47	0	3.00	\$45,190.53	\$45,190.53
Minnesota Energy Resrcs	Gas	37600-Mains	178	Plastic 3/4 in	1987	2618	\$9,487.00	\$3.62	\$23,678.93	\$9.04	0	0.75	\$23,678.93	\$23,678.93
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1987	2672	\$142,187.60	\$53.21	\$354,890.99	\$132.82	0	4.00	\$354,890.99	\$354,890.99
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1987	17594	\$99,165.76	\$5.64	\$247,511.29	\$14.07	1	1.25	\$247,511.29	\$247,511.29
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1987	359	\$319,986.67	\$891.33	\$798,665.92	\$2,224.70	1	4.00	\$798,665.92	\$798,665.92
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1988	1237	\$64,131.44	\$51.84	\$153,815.25	\$124.35	0	1.00	\$153,815.25	\$153,815.25
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1988	24020	\$1,205,230.79	\$50.18	\$2,890,670.71	\$120.34	0	2.00	\$2,890,670.71	\$2,890,670.71
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1988	2789	\$144,513.64	\$51.82	\$346,606.93	\$124.28	0	3.00	\$346,606.93	\$346,606.93
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1988	1623	\$168,039.32	\$103.54	\$403,031.82	\$248.33	0	4.00	\$403,031.82	\$403,031.82
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1988	20801	\$87,469.83	\$4.21	\$209,790.92	\$10.09	1	1.25	\$209,790.92	\$209,790.92
Minnesota Energy Resrcs	Gas	37600-Mains	185	Steel 1 in	1988	31	\$99.78	\$3.22	\$239.32	\$7.72	1	1.00	\$239.32	\$239.32
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1988	36226	\$302,269.62	\$8.34	\$724,974.78	\$20.01	1	2.00	\$724,974.78	\$724,974.78
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1988	13470	\$44,110.23	\$3.27	\$105,795.63	\$7.85	1	3.00	\$105,795.63	\$105,795.63
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1988	3168	\$31,023.85	\$9.79	\$74,408.77	\$23.49	1	4.00	\$74,408.77	\$74,408.77
Minnesota Energy Resrcs	Gas	37600-Mains	174	Plastic 1 1/4 in	1989	4832	\$3,673.94	\$0.76	\$8,202.91	\$1.70	0	1.25	\$8,202.91	\$8,202.91

Table 1
 FERC Account 376 - Gas Distribution Mains
 Detailed Data for Minimum System Study
 Based on Historical Year Ending December 31, 2021

Company	Product	Account	Retirement Unit Code	Retirement Unit Description	Year	PowerPlant Quantity	Actual Total Cost	Actual Unit Cost	Escalated Total Cost	Escalated Unit Cost	Material	Size	Cost (Current or Historic)	Cost (Current or Historic)
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1989	2008	\$72,107.59	\$35.91	\$160,996.59	\$80.18	0	1.00	\$160,996.59	\$160,996.59
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1989	87578	\$1,285,921.39	\$14.68	\$2,871,111.72	\$32.78	0	2.00	\$2,871,111.72	\$2,871,111.72
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1989	1949	\$29,309.12	\$15.04	\$65,439.27	\$33.58	0	3.00	\$65,439.27	\$65,439.27
Minnesota Energy Resrcs	Gas	37600-Mains	178	Plastic 3/4 in	1989	944	\$1,913.59	\$2.03	\$4,272.53	\$4.53	0	0.75	\$4,272.53	\$4,272.53
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1989	2659	\$72,100.48	\$27.12	\$160,980.71	\$60.54	0	4.00	\$160,980.71	\$160,980.71
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1989	15275	\$205,558.99	\$13.46	\$458,957.17	\$30.05	1	1.25	\$458,957.17	\$458,957.17
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1989	11236	\$319,220.62	\$28.41	\$712,732.57	\$63.43	1	2.00	\$712,732.57	\$712,732.57
Minnesota Energy Resrcs	Gas	37600-Mains	194	Steel 3/4 in	1989	85	\$466.82	\$5.49	\$1,042.28	\$12.26	1	0.75	\$1,042.28	\$1,042.28
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1989	8795	\$59,868.49	\$6.81	\$133,670.01	\$15.20	1	4.00	\$133,670.01	\$133,670.01
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	1989	20225	\$261,092.15	\$12.91	\$582,947.57	\$28.82	1	6.00	\$582,947.57	\$582,947.57
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	1989	4040	\$24,919.64	\$6.17	\$55,638.76	\$13.77	1	8.00	\$55,638.76	\$55,638.76
Minnesota Energy Resrcs	Gas	37600-Mains	174	Plastic 1 1/4 in	1990	48850	\$126,845.80	\$2.60	\$275,206.06	\$5.63	0	1.25	\$275,206.06	\$275,206.06
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1990	6238	\$43,285.56	\$6.94	\$93,912.82	\$15.05	0	1.00	\$93,912.82	\$93,912.82
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1990	170862	\$2,221,718.94	\$13.00	\$4,820,266.54	\$28.21	0	2.00	\$4,820,266.54	\$4,820,266.54
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1990	11209	\$80,211.24	\$7.16	\$174,027.21	\$15.53	0	3.00	\$174,027.21	\$174,027.21
Minnesota Energy Resrcs	Gas	37600-Mains	178	Plastic 3/4 in	1990	1700	\$14,956.18	\$8.80	\$32,449.10	\$19.09	0	0.75	\$32,449.10	\$32,449.10
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1990	45033	\$560,952.83	\$12.46	\$1,217,049.61	\$27.03	0	4.00	\$1,217,049.61	\$1,217,049.61
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	1990	17878	\$155,237.48	\$8.68	\$336,804.99	\$18.84	0	6.00	\$336,804.99	\$336,804.99
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1990	15992	\$249,864.73	\$15.62	\$542,109.36	\$33.90	1	1.25	\$542,109.36	\$542,109.36
Minnesota Energy Resrcs	Gas	37600-Mains	186	Steel 10 in	1990	79	\$992.61	\$12.56	\$2,153.58	\$27.26	1	10.00	\$2,153.58	\$2,153.58
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1990	13547	\$65,469.61	\$4.83	\$142,043.62	\$10.49	1	2.00	\$142,043.62	\$142,043.62
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1990	6674	\$32,579.15	\$4.88	\$70,684.10	\$10.59	1	3.00	\$70,684.10	\$70,684.10
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1990	8463	\$116,151.21	\$13.72	\$252,002.97	\$29.78	1	4.00	\$252,002.97	\$252,002.97
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	1990	6344	\$180,015.17	\$28.38	\$390,562.94	\$61.56	1	6.00	\$390,562.94	\$390,562.94
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	1990	3980	\$49,194.29	\$12.36	\$106,732.48	\$26.82	1	8.00	\$106,732.48	\$106,732.48
Minnesota Energy Resrcs	Gas	37600-Mains	174	Plastic 1 1/4 in	1991	51309	\$91,955.53	\$1.79	\$194,692.03	\$3.79	0	1.25	\$194,692.03	\$194,692.03
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1991	2161	\$14,785.43	\$6.84	\$31,304.34	\$14.49	0	1.00	\$31,304.34	\$31,304.34
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1991	261170	\$778,986.37	\$2.98	\$1,649,302.11	\$6.32	0	2.00	\$1,649,302.11	\$1,649,302.11
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1991	50669	\$169,770.95	\$3.35	\$359,446.07	\$7.09	0	3.00	\$359,446.07	\$359,446.07
Minnesota Energy Resrcs	Gas	37600-Mains	178	Plastic 3/4 in	1991	12200	\$31,571.95	\$2.59	\$66,845.43	\$5.48	0	0.75	\$66,845.43	\$66,845.43
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1991	45996	\$354,581.55	\$7.71	\$750,734.71	\$16.32	0	4.00	\$750,734.71	\$750,734.71
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	1991	195	\$691.72	\$3.55	\$1,464.54	\$7.51	0	6.00	\$1,464.54	\$1,464.54
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1991	49264	\$272,265.67	\$5.53	\$576,452.13	\$11.70	1	1.25	\$576,452.13	\$576,452.13
Minnesota Energy Resrcs	Gas	37600-Mains	185	Steel 1 in	1991	47447	\$270,976.00	\$5.71	\$573,721.60	\$12.09	1	1.00	\$573,721.60	\$573,721.60
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1991	42888	\$241,715.82	\$5.64	\$511,770.73	\$11.93	1	2.00	\$511,770.73	\$511,770.73
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1991	9793	\$52,709.94	\$5.38	\$111,599.67	\$11.40	1	3.00	\$111,599.67	\$111,599.67
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1991	126998	\$4,105,069.30	\$32.32	\$8,691,422.61	\$68.44	1	4.00	\$8,691,422.61	\$8,691,422.61
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	1991	7801	\$402,482.82	\$51.59	\$852,153.28	\$109.24	1	8.00	\$852,153.28	\$852,153.28
Minnesota Energy Resrcs	Gas	37600-Mains	174	Plastic 1 1/4 in	1992	26397	\$41,150.36	\$1.56	\$86,233.19	\$3.27	0	1.25	\$86,233.19	\$86,233.19
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1992	12070	\$30,019.81	\$2.49	\$62,908.42	\$5.21	0	1.00	\$62,908.42	\$62,908.42
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1992	283067	\$1,447,309.37	\$5.11	\$3,032,928.21	\$10.71	0	2.00	\$3,032,928.21	\$3,032,928.21
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1992	89917	\$386,326.88	\$4.30	\$809,572.37	\$9.00	0	3.00	\$809,572.37	\$809,572.37
Minnesota Energy Resrcs	Gas	37600-Mains	178	Plastic 3/4 in	1992	923	\$8,240.13	\$8.93	\$17,267.71	\$18.71	0	0.75	\$17,267.71	\$17,267.71
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1992	81225	\$1,133,335.64	\$13.95	\$2,374,976.39	\$29.24	0	4.00	\$2,374,976.39	\$2,374,976.39
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	1992	6591	\$49,058.40	\$7.44	\$102,804.98	\$15.60	0	6.00	\$102,804.98	\$102,804.98
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1992	34447	\$158,896.94	\$4.61	\$332,978.57	\$9.67	1	1.25	\$332,978.57	\$332,978.57
Minnesota Energy Resrcs	Gas	37600-Mains	185	Steel 1 in	1992	105	\$561.25	\$5.35	\$1,176.13	\$11.20	1	1.00	\$1,176.13	\$1,176.13
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1992	36123	\$194,115.48	\$5.37	\$406,781.23	\$11.26	1	2.00	\$406,781.23	\$406,781.23
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1992	23457	\$111,505.62	\$4.75	\$233,667.05	\$9.96	1	3.00	\$233,667.05	\$233,667.05
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1992	39744	\$1,460,682.05	\$36.75	\$3,060,951.49	\$77.02	1	4.00	\$3,060,951.49	\$3,060,951.49
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	1992	14221	\$361,939.42	\$25.45	\$758,466.91	\$53.33	1	6.00	\$758,466.91	\$758,466.91
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	1992	839	\$34,772.66	\$41.45	\$72,868.30	\$86.85	1	8.00	\$72,868.30	\$72,868.30
Minnesota Energy Resrcs	Gas	37600-Mains	174	Plastic 1 1/4 in	1993	9024	\$14,031.53	\$1.55	\$28,813.91	\$3.19	0	1.25	\$28,813.91	\$28,813.91

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Company	Product	Account	Retirement Unit Code	Retirement Unit Description	Year	PowerPlant Quantity	Actual Total Cost	Actual Unit Cost	Escalated Total Cost	Escalated Unit Cost	Material	Size	Cost (Current or Historic)	Cost (Current or Historic)
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1993	942	\$1,881.52	\$2.00	\$3,863.72	\$4.10	0	1.00	\$3,863.72	\$3,863.72
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1993	71754	\$546,789.50	\$7.62	\$1,122,838.62	\$15.65	0	2.00	\$1,122,838.62	\$1,122,838.62
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1993	15287	\$25,230.40	\$1.65	\$51,810.92	\$3.39	0	3.00	\$51,810.92	\$51,810.92
Minnesota Energy Resrcs	Gas	37600-Mains	178	Plastic 3/4 in	1993	1148	\$2,095.33	\$1.83	\$4,302.78	\$3.75	0	0.75	\$4,302.78	\$4,302.78
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1993	8513	\$434,600.18	\$51.05	\$892,456.57	\$104.83	0	4.00	\$892,456.57	\$892,456.57
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	1993	6609	\$20,518.55	\$3.10	\$42,135.08	\$6.38	0	6.00	\$42,135.08	\$42,135.08
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1993	1981	\$10,515.22	\$5.31	\$21,593.13	\$10.90	1	1.25	\$21,593.13	\$21,593.13
Minnesota Energy Resrcs	Gas	37600-Mains	185	Steel 1 in	1993	160	\$783.97	\$4.90	\$1,609.89	\$10.06	1	1.00	\$1,609.89	\$1,609.89
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1993	28197	\$139,590.89	\$4.95	\$286,651.52	\$10.17	1	2.00	\$286,651.52	\$286,651.52
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1993	8969	\$43,998.06	\$4.91	\$90,350.53	\$10.07	1	3.00	\$90,350.53	\$90,350.53
Minnesota Energy Resrcs	Gas	37600-Mains	194	Steel 3/4 in	1993	62	\$304.17	\$4.91	\$624.62	\$10.07	1	0.75	\$624.62	\$624.62
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1993	12788	\$1,131,363.40	\$88.47	\$2,323,267.98	\$181.68	1	4.00	\$2,323,267.98	\$2,323,267.98
Minnesota Energy Resrcs	Gas	37600-Mains	174	Plastic 1 1/4 in	1994	608	\$5,398.17	\$8.88	\$10,831.62	\$17.82	0	1.25	\$10,831.62	\$10,831.62
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1994	75279	\$1,144,577.72	\$15.20	\$2,296,636.29	\$30.51	0	2.00	\$2,296,636.29	\$2,296,636.29
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1994	1196	\$19,401.03	\$16.22	\$38,928.86	\$32.55	0	3.00	\$38,928.86	\$38,928.86
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1994	42319	\$1,336,993.97	\$31.59	\$2,682,726.45	\$63.39	0	4.00	\$2,682,726.45	\$2,682,726.45
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1994	690	\$52,927.23	\$76.71	\$106,200.40	\$153.91	1	2.00	\$106,200.40	\$106,200.40
Minnesota Energy Resrcs	Gas	37600-Mains	194	Steel 3/4 in	1994	39	\$1,559.47	\$39.99	\$3,129.13	\$80.23	1	0.75	\$3,129.13	\$3,129.13
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	1994	27	\$1,135.00	\$42.04	\$2,277.42	\$84.35	1	8.00	\$2,277.42	\$2,277.42
Minnesota Energy Resrcs	Gas	37600-Mains	174	Plastic 1 1/4 in	1995	1058	\$2,937.16	\$2.78	\$5,780.18	\$5.46	0	1.25	\$5,780.18	\$5,780.18
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1995	281	\$2,948.40	\$10.49	\$5,802.30	\$20.65	0	1.00	\$5,802.30	\$5,802.30
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1995	78326	\$1,642,484.46	\$20.97	\$3,232,325.20	\$41.27	0	2.00	\$3,232,325.20	\$3,232,325.20
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1995	187	\$248.49	\$1.33	\$489.02	\$2.62	0	3.00	\$489.02	\$489.02
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1995	59174	\$1,405,698.85	\$23.76	\$2,766,343.28	\$46.75	0	4.00	\$2,766,343.28	\$2,766,343.28
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	1995	70727	\$571,451.83	\$8.08	\$1,124,587.90	\$15.90	0	6.00	\$1,124,587.90	\$1,124,587.90
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1995	86	\$5,904.79	\$68.66	\$11,620.33	\$135.12	1	2.00	\$11,620.33	\$11,620.33
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1995	15	\$70.89	\$4.73	\$139.51	\$9.30	1	3.00	\$139.51	\$139.51
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1995	12	\$641.57	\$53.46	\$1,262.58	\$105.22	1	4.00	\$1,262.58	\$1,262.58
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	1995	1	\$50.42	\$50.42	\$99.22	\$99.22	1	6.00	\$99.22	\$99.22
Minnesota Energy Resrcs	Gas	37600-Mains	174	Plastic 1 1/4 in	1996	1785	\$10,597.46	\$5.94	\$20,270.53	\$11.36	0	1.25	\$20,270.53	\$20,270.53
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1996	91261	\$863,437.04	\$9.46	\$1,651,558.72	\$18.10	0	2.00	\$1,651,558.72	\$1,651,558.72
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1996	14506	\$278,952.02	\$19.23	\$533,571.79	\$36.78	0	4.00	\$533,571.79	\$533,571.79
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1996	17207	\$607,654.96	\$35.31	\$1,162,305.75	\$67.55	1	1.25	\$1,162,305.75	\$1,162,305.75
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1996	10276	\$367,317.51	\$35.75	\$702,594.87	\$68.37	1	2.00	\$702,594.87	\$702,594.87
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1996	3885	\$137,331.10	\$35.35	\$262,683.16	\$67.61	1	3.00	\$262,683.16	\$262,683.16
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1996	2413	\$238,302.60	\$98.76	\$455,818.68	\$188.90	1	4.00	\$455,818.68	\$455,818.68
Minnesota Energy Resrcs	Gas	37600-Mains	174	Plastic 1 1/4 in	1997	125	\$594.56	\$4.76	\$1,112.99	\$8.90	0	1.25	\$1,112.99	\$1,112.99
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	1997	271	\$4,989.25	\$18.41	\$9,339.63	\$34.46	0	1.00	\$9,339.63	\$9,339.63
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1997	168983	\$2,144,057.13	\$12.69	\$4,013,570.37	\$23.75	0	2.00	\$4,013,570.37	\$4,013,570.37
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	1997	59	\$127.91	\$2.17	\$239.44	\$4.06	0	3.00	\$239.44	\$239.44
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1997	35913	\$894,775.00	\$24.92	\$1,674,975.17	\$46.64	0	4.00	\$1,674,975.17	\$1,674,975.17
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1997	367	\$20,183.62	\$55.00	\$37,782.75	\$102.95	1	1.25	\$37,782.75	\$37,782.75
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1997	584	\$48,837.84	\$83.63	\$91,422.05	\$156.54	1	2.00	\$91,422.05	\$91,422.05
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	1997	744	\$108,695.32	\$146.10	\$203,472.33	\$273.48	1	4.00	\$203,472.33	\$203,472.33
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1998	106956	\$864,526.94	\$8.08	\$1,579,820.04	\$14.77	0	2.00	\$1,579,820.04	\$1,579,820.04
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1998	73094	\$1,030,763.20	\$14.10	\$1,883,597.04	\$25.77	0	4.00	\$1,883,597.04	\$1,883,597.04
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	1998	6	\$92.80	\$15.47	\$169.58	\$28.26	1	1.25	\$169.58	\$169.58
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	1998	40	\$543.55	\$13.59	\$993.27	\$24.83	1	3.00	\$993.27	\$993.27
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	1999	24957	\$380,261.59	\$15.24	\$682,691.81	\$27.35	0	2.00	\$682,691.81	\$682,691.81
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	1999	3739	\$129,951.65	\$34.76	\$233,305.02	\$62.40	0	4.00	\$233,305.02	\$233,305.02
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	1999	719	\$26,140.83	\$36.36	\$46,931.20	\$65.27	1	2.00	\$46,931.20	\$46,931.20
Minnesota Energy Resrcs	Gas	37600-Mains	194	Steel 3/4 in	1999	176	\$7,416.96	\$42.14	\$13,315.83	\$75.66	1	0.75	\$13,315.83	\$13,315.83
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	2000	271345	\$2,608,702.99	\$9.61	\$4,602,711.72	\$16.96	0	2.00	\$4,602,711.72	\$4,602,711.72

Table 1
 FERC Account 376 - Gas Distribution Mains
 Detailed Data for Minimum System Study
 Based on Historical Year Ending December 31, 2021

Company	Product	Account	Retirement Unit Code	Retirement Unit Description	Year	PowerPlant Quantity	Actual Total Cost	Actual Unit Cost	Escalated Total Cost	Escalated Unit Cost	Material	Size	Cost (Current or Historic)	Cost (Current or Historic)
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	2000	53084	\$1,244,144.87	\$23.44	\$2,195,129.16	\$41.35	0	4.00	\$2,195,129.16	\$2,195,129.16
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	2000	16280	\$339,740.87	\$20.87	\$599,427.86	\$36.82	0	6.00	\$599,427.86	\$599,427.86
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	2000	667	\$86,502.91	\$129.69	\$152,622.95	\$228.82	1	2.00	\$152,622.95	\$152,622.95
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	2000	896	\$151,995.00	\$169.64	\$268,175.08	\$299.30	1	6.00	\$268,175.08	\$268,175.08
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	2000	3857	\$192,582.87	\$49.93	\$339,787.02	\$88.10	1	8.00	\$339,787.02	\$339,787.02
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	2001	354	\$4,225.39	\$11.94	\$7,246.90	\$20.47	0	1.00	\$7,246.90	\$7,246.90
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	2001	383003	\$2,902,698.96	\$7.58	\$4,978,372.09	\$13.00	0	2.00	\$4,978,372.09	\$4,978,372.09
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	2001	82267	\$982,864.82	\$11.95	\$1,685,695.53	\$20.49	0	4.00	\$1,685,695.53	\$1,685,695.53
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	2001	3407	\$55,984.32	\$16.43	\$96,017.81	\$28.18	0	6.00	\$96,017.81	\$96,017.81
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	2001	1237	\$39,783.26	\$32.16	\$68,231.65	\$55.16	1	2.00	\$68,231.65	\$68,231.65
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	2001	880	\$39,925.10	\$45.37	\$68,474.90	\$77.81	1	4.00	\$68,474.90	\$68,474.90
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	2001	26741	\$64,279.95	\$2.40	\$110,245.51	\$4.12	1	6.00	\$110,245.51	\$110,245.51
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	2001	863	\$2,624.52	\$3.04	\$4,501.27	\$5.22	1	8.00	\$4,501.27	\$4,501.27
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	2002	265537	\$3,571,163.78	\$13.45	\$5,990,968.74	\$22.56	0	2.00	\$5,990,968.74	\$5,990,968.74
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	2002	90138	\$2,369,184.10	\$26.28	\$3,974,532.94	\$44.09	0	4.00	\$3,974,532.94	\$3,974,532.94
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	2002	7362	\$196,807.11	\$26.73	\$330,162.75	\$44.85	0	6.00	\$330,162.75	\$330,162.75
Minnesota Energy Resrcs	Gas	37600-Mains	187	Steel 12 in	2002	516	\$1,354.62	\$2.63	\$2,272.50	\$4.40	1	12.00	\$2,272.50	\$2,272.50
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	2002	74	\$3,485.99	\$47.11	\$5,848.08	\$79.03	1	2.00	\$5,848.08	\$5,848.08
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	2002	20	\$0.20	\$0.01	\$0.34	\$0.02	1	3.00	\$0.34	\$0.34
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	2002	277	\$68,048.33	\$245.66	\$114,157.58	\$412.12	1	6.00	\$114,157.58	\$114,157.58
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	2002	40	\$3,588.21	\$89.71	\$6,019.56	\$150.49	1	8.00	\$6,019.56	\$6,019.56
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	2003	19	\$2,000.07	\$105.27	\$3,310.09	\$174.22	0	1.00	\$3,310.09	\$3,310.09
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	2003	369898	\$4,572,061.21	\$12.36	\$7,566,699.68	\$20.46	0	2.00	\$7,566,699.68	\$7,566,699.68
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	2003	81618	\$2,060,705.80	\$25.25	\$3,410,440.39	\$41.79	0	4.00	\$3,410,440.39	\$3,410,440.39
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	2003	20967	\$558,517.59	\$26.64	\$924,339.11	\$44.09	0	6.00	\$924,339.11	\$924,339.11
Minnesota Energy Resrcs	Gas	37600-Mains	183	Steel 1 1/2 in	2003	91	\$0.91	\$0.01	\$1.51	\$0.02	1	1.50	\$1.51	\$1.51
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	2003	238	\$2.38	\$0.01	\$3.94	\$0.02	1	1.25	\$3.94	\$3.94
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	2003	386	\$9,450.30	\$24.48	\$15,640.12	\$40.52	1	2.00	\$15,640.12	\$15,640.12
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	2003	4761	\$506,786.50	\$106.45	\$838,724.83	\$176.17	1	8.00	\$838,724.83	\$838,724.83
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	2004	396517	\$3,044,528.23	\$7.68	\$4,880,784.01	\$12.31	0	2.00	\$4,880,784.01	\$4,880,784.01
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	2004	95049	\$1,428,127.10	\$15.03	\$2,289,477.88	\$24.09	0	4.00	\$2,289,477.88	\$2,289,477.88
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	2004	11606	\$172,629.24	\$14.87	\$276,747.69	\$23.85	0	6.00	\$276,747.69	\$276,747.69
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	2004	147	\$7,426.41	\$50.52	\$11,905.52	\$80.99	1	2.00	\$11,905.52	\$11,905.52
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	2004	262	\$5,029.55	\$19.20	\$8,063.04	\$30.77	1	3.00	\$8,063.04	\$8,063.04
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	2004	2732	\$146,859.03	\$53.76	\$235,434.58	\$86.18	1	4.00	\$235,434.58	\$235,434.58
Minnesota Energy Resrcs	Gas	37600-Mains	174	Plastic 1 1/4 in	2005	8829	\$39,907.36	\$4.52	\$59,909.83	\$6.79	0	1.25	\$59,909.83	\$59,909.83
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	2005	502871	\$3,709,949.02	\$7.38	\$5,569,459.09	\$11.08	0	2.00	\$5,569,459.09	\$5,569,459.09
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	2005	1923	\$12,955.14	\$6.74	\$19,448.56	\$10.11	0	3.00	\$19,448.56	\$19,448.56
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	2005	93343	\$1,458,435.25	\$15.62	\$2,189,435.82	\$23.46	0	4.00	\$2,189,435.82	\$2,189,435.82
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	2005	58085	\$833,473.99	\$14.35	\$1,251,229.92	\$21.54	0	6.00	\$1,251,229.92	\$1,251,229.92
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	2005	1207	\$13,120.09	\$10.87	\$19,696.17	\$16.32	1	1.25	\$19,696.17	\$19,696.17
Minnesota Energy Resrcs	Gas	37600-Mains	187	Steel 12 in	2005	7807	\$485,079.02	\$62.13	\$728,211.54	\$93.28	1	12.00	\$728,211.54	\$728,211.54
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	2005	4702	\$97,292.78	\$20.69	\$146,058.12	\$31.06	1	2.00	\$146,058.12	\$146,058.12
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	2005	359	\$4,768.49	\$13.28	\$7,158.56	\$19.94	1	3.00	\$7,158.56	\$7,158.56
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	2005	681	\$24,890.58	\$36.55	\$37,366.30	\$54.87	1	4.00	\$37,366.30	\$37,366.30
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	2005	1025	\$75,999.86	\$74.15	\$114,092.69	\$111.31	1	6.00	\$114,092.69	\$114,092.69
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	2005	3387	\$120,740.03	\$35.65	\$181,257.65	\$53.52	1	8.00	\$181,257.65	\$181,257.65
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	2006	374503	\$2,686,425.04	\$7.17	\$3,835,965.02	\$10.24	0	2.00	\$3,835,965.02	\$3,835,965.02
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	2006	68153	\$1,065,328.57	\$15.63	\$1,521,190.11	\$22.32	0	4.00	\$1,521,190.11	\$1,521,190.11
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	2006	72687	\$1,546,178.71	\$21.27	\$2,207,799.35	\$30.37	0	6.00	\$2,207,799.35	\$2,207,799.35
Minnesota Energy Resrcs	Gas	37600-Mains	187	Steel 12 in	2006	4083	\$812,209.48	\$198.92	\$1,159,759.58	\$284.05	1	12.00	\$1,159,759.58	\$1,159,759.58
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	2006	3830	\$199,335.17	\$52.05	\$284,632.10	\$74.32	1	2.00	\$284,632.10	\$284,632.10
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	2006	16	\$8,643.98	\$540.25	\$12,342.80	\$771.43	1	3.00	\$12,342.80	\$12,342.80

Table 1
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 Detailed Data for Minimum System Study
 Based on Historical Year Ending December 31, 2021

Company	Product	Account	Retirement Unit Code	Retirement Unit Description	Year	PowerPlant Quantity	Actual Total Cost	Actual Unit Cost	Escalated Total Cost	Escalated Unit Cost	Material	Size	Cost (Current or Historic)	Cost (Current or Historic)
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	2006	8535	\$357,663.90	\$41.91	\$510,710.81	\$59.84	1	4.00	\$510,710.81	\$510,710.81
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	2006	6068	\$623,586.68	\$102.77	\$890,423.78	\$146.74	1	6.00	\$890,423.78	\$890,423.78
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	2006	8275	\$207,200.12	\$25.04	\$295,862.50	\$35.75	1	8.00	\$295,862.50	\$295,862.50
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	2007	365	\$7,371.88	\$20.20	\$9,991.91	\$27.38	0	1.00	\$9,991.91	\$9,991.91
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	2007	283313	\$2,998,263.58	\$10.58	\$4,063,871.52	\$14.34	0	2.00	\$4,063,871.52	\$4,063,871.52
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	2007	82476	\$1,589,605.50	\$19.27	\$2,154,564.61	\$26.12	0	4.00	\$2,154,564.61	\$2,154,564.61
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	2007	40074	\$853,048.05	\$21.29	\$1,156,228.51	\$28.85	0	6.00	\$1,156,228.51	\$1,156,228.51
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	2007	2	\$6,325.16	\$3,162.58	\$8,573.18	\$4,286.59	1	1.25	\$8,573.18	\$8,573.18
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	2007	2652	\$100,537.41	\$37.91	\$136,269.29	\$51.38	1	2.00	\$136,269.29	\$136,269.29
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	2007	273	\$32,958.32	\$120.73	\$44,671.99	\$163.63	1	3.00	\$44,671.99	\$44,671.99
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	2007	4452	\$279,762.26	\$62.84	\$379,192.12	\$85.17	1	4.00	\$379,192.12	\$379,192.12
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	2007	18476	\$912,422.60	\$49.38	\$1,236,705.25	\$66.94	1	6.00	\$1,236,705.25	\$1,236,705.25
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	2007	1	\$496.30	\$496.30	\$672.69	\$672.69	1	8.00	\$672.69	\$672.69
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	2008	429	\$1,085.95	\$2.53	\$1,418.67	\$3.31	0	1.00	\$1,418.67	\$1,418.67
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	2008	183942	\$2,326,609.26	\$12.65	\$3,039,442.79	\$16.52	0	2.00	\$3,039,442.79	\$3,039,442.79
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	2008	7	\$8,008.00	\$1,144.00	\$10,461.51	\$1,494.50	0	3.00	\$10,461.51	\$10,461.51
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	2008	39027	\$859,450.94	\$22.02	\$1,122,772.09	\$28.77	0	4.00	\$1,122,772.09	\$1,122,772.09
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	2008	7100	\$254,662.84	\$35.87	\$332,687.21	\$46.86	0	6.00	\$332,687.21	\$332,687.21
Minnesota Energy Resrcs	Gas	37600-Mains	182	Plastic 8 in	2008	7458	\$323,039.14	\$43.31	\$422,012.83	\$56.59	0	8.00	\$422,012.83	\$422,012.83
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	2008	4	\$9,043.03	\$2,260.76	\$11,813.66	\$2,953.42	1	1.25	\$11,813.66	\$11,813.66
Minnesota Energy Resrcs	Gas	37600-Mains	187	Steel 12 in	2008	10201	\$2,476,357.16	\$242.76	\$3,235,070.85	\$317.13	1	12.00	\$3,235,070.85	\$3,235,070.85
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	2008	3013	\$232,640.22	\$77.21	\$303,917.24	\$100.87	1	2.00	\$303,917.24	\$303,917.24
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	2008	41	\$48,364.35	\$1,179.62	\$63,182.37	\$1,541.03	1	3.00	\$63,182.37	\$63,182.37
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	2008	7351	\$307,419.76	\$41.82	\$401,607.94	\$54.63	1	4.00	\$401,607.94	\$401,607.94
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	2008	24638	\$1,474,991.71	\$59.87	\$1,926,904.04	\$78.21	1	6.00	\$1,926,904.04	\$1,926,904.04
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	2008	263	\$120,491.26	\$458.14	\$157,407.73	\$598.51	1	8.00	\$157,407.73	\$157,407.73
Minnesota Energy Resrcs	Gas	37600-Mains	174	Plastic 1 1/4 in	2009	3	\$52.35	\$17.45	\$64.94	\$21.65	0	1.25	\$64.94	\$64.94
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	2009	115291	\$1,725,684.44	\$14.97	\$2,140,545.81	\$18.57	0	2.00	\$2,140,545.81	\$2,140,545.81
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	2009	26	\$2,346.30	\$90.24	\$2,910.36	\$111.94	0	3.00	\$2,910.36	\$2,910.36
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	2009	22745	\$593,726.61	\$26.10	\$736,460.87	\$32.38	0	4.00	\$736,460.87	\$736,460.87
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	2009	21106	\$653,329.75	\$30.95	\$810,392.86	\$38.40	0	6.00	\$810,392.86	\$810,392.86
Minnesota Energy Resrcs	Gas	37600-Mains	182	Plastic 8 in	2009	7213	\$470,416.95	\$65.22	\$583,507.08	\$80.90	0	8.00	\$583,507.08	\$583,507.08
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	2009	51	\$38,920.92	\$763.16	\$48,277.65	\$946.62	1	1.25	\$48,277.65	\$48,277.65
Minnesota Energy Resrcs	Gas	37600-Mains	185	Steel 1 in	2009	6	\$1,619.89	\$269.98	\$2,009.32	\$334.89	1	1.00	\$2,009.32	\$2,009.32
Minnesota Energy Resrcs	Gas	37600-Mains	187	Steel 12 in	2009	11316	\$2,113,949.94	\$186.81	\$2,622,152.05	\$231.72	1	12.00	\$2,622,152.05	\$2,622,152.05
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	2009	2505	\$167,748.17	\$66.97	\$208,075.52	\$83.06	1	2.00	\$208,075.52	\$208,075.52
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	2009	262	\$28,246.16	\$107.81	\$35,036.65	\$133.73	1	3.00	\$35,036.65	\$35,036.65
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	2009	1548	\$174,833.37	\$112.94	\$216,864.02	\$140.09	1	4.00	\$216,864.02	\$216,864.02
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	2009	2562	\$235,844.04	\$92.05	\$292,541.92	\$114.18	1	6.00	\$292,541.92	\$292,541.92
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	2009	1543	\$181,265.33	\$117.48	\$224,842.25	\$145.72	1	8.00	\$224,842.25	\$224,842.25
Minnesota Energy Resrcs	Gas	37600-Mains	174	Plastic 1 1/4 in	2010	1	\$2,605.15	\$2,605.15	\$3,318.59	\$3,318.59	0	1.25	\$3,318.59	\$3,318.59
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	2010	1	\$1,596.24	\$1,596.24	\$2,033.39	\$2,033.39	0	1.00	\$2,033.39	\$2,033.39
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	2010	111578	\$1,975,269.58	\$17.70	\$2,516,214.78	\$22.55	0	2.00	\$2,516,214.78	\$2,516,214.78
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	2010	19	\$5,869.74	\$308.93	\$7,477.22	\$393.54	0	3.00	\$7,477.22	\$7,477.22
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	2010	55281	\$1,391,928.56	\$25.18	\$1,773,120.62	\$32.07	0	4.00	\$1,773,120.62	\$1,773,120.62
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	2010	5292	\$309,048.25	\$58.40	\$393,683.86	\$74.39	0	6.00	\$393,683.86	\$393,683.86
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	2010	5	\$13,573.48	\$2,714.70	\$17,290.70	\$3,458.14	1	1.25	\$17,290.70	\$17,290.70
Minnesota Energy Resrcs	Gas	37600-Mains	185	Steel 1 in	2010	9	\$5,732.49	\$636.94	\$7,302.38	\$811.38	1	1.00	\$7,302.38	\$7,302.38
Minnesota Energy Resrcs	Gas	37600-Mains	187	Steel 12 in	2010	1896	\$418,880.27	\$220.93	\$533,594.37	\$281.43	1	12.00	\$533,594.37	\$533,594.37
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	2010	4708	\$343,849.18	\$73.04	\$438,015.35	\$93.04	1	2.00	\$438,015.35	\$438,015.35
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	2010	80	\$19,735.88	\$246.70	\$25,140.72	\$314.26	1	3.00	\$25,140.72	\$25,140.72
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	2010	6907	\$816,874.45	\$118.27	\$1,040,582.81	\$150.66	1	4.00	\$1,040,582.81	\$1,040,582.81
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	2010	4743	\$654,946.89	\$138.09	\$834,309.96	\$175.90	1	6.00	\$834,309.96	\$834,309.96

Table 1
 FERC Account 376 - Gas Distribution Mains
 Detailed Data for Minimum System Study
 Based on Historical Year Ending December 31, 2021

Company	Product	Account	Retirement Unit Code	Retirement Unit Description	Year	PowerPlant Quantity	Actual Total Cost	Actual Unit Cost	Escalated Total Cost	Escalated Unit Cost	Material	Size	Cost (Current or Historic)	Cost (Current or Historic)
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	2010	1236	\$190,829.49	\$154.39	\$243,089.84	\$196.67	1	8.00	\$243,089.84	\$243,089.84
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	2011	161977	\$2,856,858.75	\$17.64	\$3,529,398.95	\$21.79	0	2.00	\$3,529,398.95	\$3,529,398.95
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	2011	19	\$15,662.16	\$824.32	\$19,349.23	\$1,018.38	0	3.00	\$19,349.23	\$19,349.23
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	2011	36503	\$1,320,465.94	\$36.17	\$1,631,320.11	\$44.69	0	4.00	\$1,631,320.11	\$1,631,320.11
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	2011	14378	\$698,582.67	\$48.59	\$863,037.73	\$60.02	0	6.00	\$863,037.73	\$863,037.73
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	2011	277	\$13,996.95	\$50.53	\$17,292.00	\$62.43	1	1.25	\$17,292.00	\$17,292.00
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	2011	1530	\$130,360.52	\$85.20	\$161,048.99	\$105.26	1	2.00	\$161,048.99	\$161,048.99
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	2011	52	\$29,339.37	\$564.22	\$36,246.22	\$697.04	1	3.00	\$36,246.22	\$36,246.22
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	2011	1882	\$248,766.52	\$132.18	\$307,329.29	\$163.30	1	4.00	\$307,329.29	\$307,329.29
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	2011	159	\$35,830.85	\$225.35	\$44,265.88	\$278.40	1	6.00	\$44,265.88	\$44,265.88
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	2012	628	\$2,388.91	\$3.80	\$2,815.34	\$4.48	0	1.00	\$2,815.34	\$2,815.34
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	2012	176711	\$3,059,836.21	\$17.32	\$3,606,025.72	\$20.41	0	2.00	\$3,606,025.72	\$3,606,025.72
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	2012	25	\$12,419.20	\$496.77	\$14,636.07	\$585.44	0	3.00	\$14,636.07	\$14,636.07
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	2012	65532	\$1,779,857.47	\$27.16	\$2,097,567.15	\$32.01	0	4.00	\$2,097,567.15	\$2,097,567.15
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	2012	10528	\$434,747.41	\$41.29	\$512,351.10	\$48.67	0	6.00	\$512,351.10	\$512,351.10
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	2012	9	\$15,749.77	\$1,749.97	\$18,561.15	\$2,062.35	1	1.25	\$18,561.15	\$18,561.15
Minnesota Energy Resrcs	Gas	37600-Mains	185	Steel 1 in	2012	4	\$2,996.61	\$749.15	\$3,531.51	\$882.88	1	1.00	\$3,531.51	\$3,531.51
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	2012	4725	\$450,888.43	\$95.43	\$531,373.29	\$112.46	1	2.00	\$531,373.29	\$531,373.29
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	2012	107	\$47,378.30	\$442.79	\$55,835.46	\$521.83	1	3.00	\$55,835.46	\$55,835.46
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	2012	1591	\$318,850.95	\$200.41	\$375,766.77	\$236.18	1	4.00	\$375,766.77	\$375,766.77
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	2012	3377	\$541,091.52	\$160.23	\$637,677.90	\$188.83	1	6.00	\$637,677.90	\$637,677.90
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	2012	4056	\$390,796.33	\$96.35	\$460,554.59	\$113.55	1	8.00	\$460,554.59	\$460,554.59
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	2013	27	\$29,226.13	\$1,082.45	\$34,245.87	\$1,268.37	0	1.00	\$34,245.87	\$34,245.87
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	2013	194470	\$3,058,661.31	\$15.73	\$3,584,004.06	\$18.43	0	2.00	\$3,584,004.06	\$3,584,004.06
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	2013	18	\$33,482.62	\$1,860.15	\$39,233.46	\$2,179.64	0	3.00	\$39,233.46	\$39,233.46
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	2013	38933	\$1,106,456.51	\$28.42	\$1,296,496.71	\$33.30	0	4.00	\$1,296,496.71	\$1,296,496.71
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	2013	33022	\$1,142,693.04	\$34.60	\$1,338,957.11	\$40.55	0	6.00	\$1,338,957.11	\$1,338,957.11
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	2013	61	\$18,419.11	\$301.95	\$21,582.70	\$353.81	1	1.25	\$21,582.70	\$21,582.70
Minnesota Energy Resrcs	Gas	37600-Mains	185	Steel 1 in	2013	2	\$7,937.02	\$3,968.51	\$9,300.25	\$4,650.13	1	1.00	\$9,300.25	\$9,300.25
Minnesota Energy Resrcs	Gas	37600-Mains	187	Steel 12 in	2013	660	\$369,682.44	\$560.12	\$433,177.51	\$656.33	1	12.00	\$433,177.51	\$433,177.51
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	2013	2143	\$260,268.83	\$121.45	\$304,971.50	\$142.31	1	2.00	\$304,971.50	\$304,971.50
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	2013	6	\$4,997.29	\$832.88	\$5,855.61	\$975.94	1	3.00	\$5,855.61	\$5,855.61
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	2013	12278	\$515,428.96	\$41.98	\$603,956.83	\$49.19	1	4.00	\$603,956.83	\$603,956.83
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	2013	4700	\$808,334.77	\$171.99	\$947,170.87	\$201.53	1	6.00	\$947,170.87	\$947,170.87
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	2013	10	\$62,977.11	\$6,297.71	\$73,793.79	\$7,379.38	1	8.00	\$73,793.79	\$73,793.79
Minnesota Energy Resrcs	Gas	37600-Mains	174	Plastic 1 1/4 in	2014	5	\$21,246.10	\$4,249.22	\$24,753.52	\$4,950.70	0	1.25	\$24,753.52	\$24,753.52
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	2014	279	\$48,009.87	\$172.08	\$55,935.61	\$200.49	0	1.00	\$55,935.61	\$55,935.61
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	2014	270434	\$3,619,731.27	\$13.38	\$4,217,296.03	\$15.59	0	2.00	\$4,217,296.03	\$4,217,296.03
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	2014	33	\$31,373.37	\$950.71	\$36,552.66	\$1,107.66	0	3.00	\$36,552.66	\$36,552.66
Minnesota Energy Resrcs	Gas	37600-Mains	178	Plastic 3/4 in	2014	3	\$34.99	\$11.66	\$40.76	\$13.59	0	0.75	\$40.76	\$40.76
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	2014	114060	\$2,487,971.64	\$21.81	\$2,898,699.42	\$25.41	0	4.00	\$2,898,699.42	\$2,898,699.42
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	2014	43345	\$2,208,060.38	\$50.94	\$2,572,578.89	\$59.35	0	6.00	\$2,572,578.89	\$2,572,578.89
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	2014	7	\$10,348.02	\$1,478.29	\$12,056.33	\$1,722.33	1	1.25	\$12,056.33	\$12,056.33
Minnesota Energy Resrcs	Gas	37600-Mains	185	Steel 1 in	2014	19	\$15,361.75	\$808.51	\$17,897.74	\$941.99	1	1.00	\$17,897.74	\$17,897.74
Minnesota Energy Resrcs	Gas	37600-Mains	186	Steel 10 in	2014	2982	\$81,225.90	\$27.24	\$94,635.11	\$31.74	1	10.00	\$94,635.11	\$94,635.11
Minnesota Energy Resrcs	Gas	37600-Mains	187	Steel 12 in	2014	2081	\$1,181,618.01	\$567.81	\$1,376,685.89	\$661.55	1	12.00	\$1,376,685.89	\$1,376,685.89
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	2014	4124	\$286,217.60	\$69.40	\$333,467.97	\$80.86	1	2.00	\$333,467.97	\$333,467.97
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	2014	156	\$33,275.13	\$213.30	\$38,768.36	\$248.52	1	3.00	\$38,768.36	\$38,768.36
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	2014	1879	\$182,990.69	\$97.39	\$213,199.78	\$113.46	1	4.00	\$213,199.78	\$213,199.78
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	2014	6552	\$501,038.16	\$76.47	\$583,752.24	\$89.10	1	6.00	\$583,752.24	\$583,752.24
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	2014	953	\$382,142.07	\$400.99	\$445,228.15	\$467.19	1	8.00	\$445,228.15	\$445,228.15
Minnesota Energy Resrcs	Gas	37600-Mains	174	Plastic 1 1/4 in	2015	1	\$8,336.35	\$8,336.35	\$9,621.28	\$9,621.28	0	1.25	\$9,621.28	\$9,621.28
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	2015	139	\$119,078.16	\$856.68	\$137,432.31	\$988.72	0	1.00	\$137,432.31	\$137,432.31

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Company	Product	Account	Retirement Unit Code	Retirement Unit Description	Year	PowerPlant Quantity	Actual Total Cost	Actual Unit Cost	Escalated Total Cost	Escalated Unit Cost	Material	Size	Cost (Current or Historic)	Cost (Current or Historic)
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	2015	275120	\$3,716,706.18	\$13.51	\$4,289,581.99	\$15.59	0	2.00	\$4,289,581.99	\$4,289,581.99
Minnesota Energy Resrcs	Gas	37600-Mains	178	Plastic 3/4 in	2015	1	\$13.22	\$13.22	\$15.26	\$15.26	0	0.75	\$15.26	\$15.26
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	2015	116438	\$2,826,355.24	\$24.27	\$3,261,996.42	\$28.01	0	4.00	\$3,261,996.42	\$3,261,996.42
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	2015	100348	\$4,427,342.35	\$44.12	\$5,109,752.25	\$50.92	0	6.00	\$5,109,752.25	\$5,109,752.25
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	2015	20	\$9,207.59	\$460.38	\$10,626.80	\$531.34	1	1.25	\$10,626.80	\$10,626.80
Minnesota Energy Resrcs	Gas	37600-Mains	186	Steel 10 in	2015	883	\$108,633.25	\$123.03	\$125,377.47	\$141.99	1	10.00	\$125,377.47	\$125,377.47
Minnesota Energy Resrcs	Gas	37600-Mains	187	Steel 12 in	2015	5601	\$1,111,439.15	\$198.44	\$1,282,751.20	\$229.02	1	12.00	\$1,282,751.20	\$1,282,751.20
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	2015	5445	\$422,356.39	\$77.57	\$487,456.43	\$89.52	1	2.00	\$487,456.43	\$487,456.43
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	2015	111	\$70,275.89	\$633.12	\$81,107.89	\$730.70	1	3.00	\$81,107.89	\$81,107.89
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	2015	3610	\$370,142.54	\$102.53	\$427,194.58	\$118.34	1	4.00	\$427,194.58	\$427,194.58
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	2015	11483	\$1,337,039.44	\$116.44	\$1,543,124.48	\$134.38	1	6.00	\$1,543,124.48	\$1,543,124.48
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	2015	28284	\$3,067,877.14	\$108.47	\$3,540,745.42	\$125.19	1	8.00	\$3,540,745.42	\$3,540,745.42
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	2016	152	\$81,441.78	\$535.80	\$92,946.60	\$611.49	0	1.00	\$92,946.60	\$92,946.60
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	2016	317224	\$4,440,020.97	\$14.00	\$5,067,235.82	\$15.97	0	2.00	\$5,067,235.82	\$5,067,235.82
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	2016	23	\$16,132.73	\$701.42	\$18,411.70	\$800.51	0	3.00	\$18,411.70	\$18,411.70
Minnesota Energy Resrcs	Gas	37600-Mains	178	Plastic 3/4 in	2016	2	\$33.14	\$16.57	\$37.82	\$18.91	0	0.75	\$37.82	\$37.82
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	2016	89831	\$2,706,922.63	\$30.13	\$3,089,313.22	\$34.39	0	4.00	\$3,089,313.22	\$3,089,313.22
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	2016	60771	\$2,232,729.01	\$36.74	\$2,548,133.08	\$41.93	0	6.00	\$2,548,133.08	\$2,548,133.08
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	2016	10	\$4,939.74	\$493.97	\$5,637.54	\$563.75	1	1.25	\$5,637.54	\$5,637.54
Minnesota Energy Resrcs	Gas	37600-Mains	185	Steel 1 in	2016	1127	\$64,610.10	\$57.33	\$73,737.20	\$65.43	1	1.00	\$73,737.20	\$73,737.20
Minnesota Energy Resrcs	Gas	37600-Mains	187	Steel 12 in	2016	5263	\$1,202,119.62	\$228.41	\$1,371,935.78	\$260.68	1	12.00	\$1,371,935.78	\$1,371,935.78
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	2016	1552	\$423,128.59	\$272.63	\$482,901.40	\$311.15	1	2.00	\$482,901.40	\$482,901.40
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	2016	50	\$25,803.12	\$516.06	\$29,448.18	\$588.96	1	3.00	\$29,448.18	\$29,448.18
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	2016	9496	\$742,947.86	\$78.24	\$847,899.63	\$89.29	1	4.00	\$847,899.63	\$847,899.63
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	2016	2516	\$232,392.56	\$92.37	\$265,221.26	\$105.41	1	6.00	\$265,221.26	\$265,221.26
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	2016	11196	\$1,622,069.83	\$144.88	\$1,851,209.81	\$165.35	1	8.00	\$1,851,209.81	\$1,851,209.81
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	2017	111	\$111,052.32	\$1,000.47	\$125,342.13	\$1,129.21	0	1.00	\$125,342.13	\$125,342.13
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	2017	454101	\$5,798,865.27	\$12.77	\$6,545,042.76	\$14.41	0	2.00	\$6,545,042.76	\$6,545,042.76
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	2017	40	\$104,134.48	\$2,603.36	\$117,534.14	\$2,938.35	0	3.00	\$117,534.14	\$117,534.14
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	2017	168356	\$4,364,670.52	\$25.93	\$4,926,300.87	\$29.26	0	4.00	\$4,926,300.87	\$4,926,300.87
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	2017	92608	\$3,719,429.05	\$40.16	\$4,198,032.11	\$45.33	0	6.00	\$4,198,032.11	\$4,198,032.11
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	2017	42	\$13,428.11	\$319.72	\$15,155.99	\$360.86	1	1.25	\$15,155.99	\$15,155.99
Minnesota Energy Resrcs	Gas	37600-Mains	185	Steel 1 in	2017	10	\$3,014.06	\$301.41	\$3,401.90	\$340.19	1	1.00	\$3,401.90	\$3,401.90
Minnesota Energy Resrcs	Gas	37600-Mains	187	Steel 12 in	2017	230	\$171,825.76	\$747.07	\$193,935.69	\$843.20	1	12.00	\$193,935.69	\$193,935.69
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	2017	3056	\$224,282.33	\$73.39	\$253,142.18	\$82.83	1	2.00	\$253,142.18	\$253,142.18
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	2017	46	\$38,364.52	\$834.01	\$43,301.12	\$941.33	1	3.00	\$43,301.12	\$43,301.12
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	2017	43487	\$2,618,853.93	\$60.22	\$2,955,838.84	\$67.97	1	4.00	\$2,955,838.84	\$2,955,838.84
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	2017	10969	\$404,378.23	\$36.87	\$456,412.19	\$41.61	1	6.00	\$456,412.19	\$456,412.19
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	2017	6215	\$1,072,665.98	\$172.59	\$1,210,692.85	\$194.80	1	8.00	\$1,210,692.85	\$1,210,692.85
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	2018	132	\$134,709.49	\$1,020.53	\$151,209.54	\$1,145.53	0	1.00	\$151,209.54	\$151,209.54
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	2018	280918	\$5,008,526.36	\$17.83	\$5,622,002.13	\$20.01	0	2.00	\$5,622,002.13	\$5,622,002.13
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	2018	42	\$108,849.61	\$2,591.66	\$122,182.20	\$2,909.10	0	3.00	\$122,182.20	\$122,182.20
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	2018	85592	\$4,348,728.88	\$50.81	\$4,881,388.50	\$57.03	0	4.00	\$4,881,388.50	\$4,881,388.50
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	2018	132562	\$5,779,486.54	\$43.60	\$6,487,394.40	\$48.94	0	6.00	\$6,487,394.40	\$6,487,394.40
Minnesota Energy Resrcs	Gas	37600-Mains	182	Plastic 8 in	2018	7610	\$782,114.64	\$102.77	\$877,912.96	\$115.36	0	8.00	\$877,912.96	\$877,912.96
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	2018	5	\$4,103.50	\$820.70	\$4,606.12	\$921.22	1	1.25	\$4,606.12	\$4,606.12
Minnesota Energy Resrcs	Gas	37600-Mains	185	Steel 1 in	2018	26	\$3,578.99	\$137.65	\$4,017.38	\$154.51	1	1.00	\$4,017.38	\$4,017.38
Minnesota Energy Resrcs	Gas	37600-Mains	187	Steel 12 in	2018	327	\$244,925.03	\$749.01	\$274,924.98	\$840.75	1	12.00	\$274,924.98	\$274,924.98
Minnesota Energy Resrcs	Gas	37600-Mains	189	Steel 16 in	2018	27290	\$7,096,021.03	\$260.02	\$7,965,186.33	\$291.87	1	16.00	\$7,965,186.33	\$7,965,186.33
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	2018	2961	\$402,374.44	\$135.89	\$451,659.80	\$152.54	1	2.00	\$451,659.80	\$451,659.80
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	2018	66	\$62,301.00	\$943.95	\$69,932.01	\$1,059.58	1	3.00	\$69,932.01	\$69,932.01
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	2018	2352	\$269,183.58	\$114.45	\$302,154.86	\$128.47	1	4.00	\$302,154.86	\$302,154.86
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	2018	47773	\$5,177,283.15	\$108.37	\$5,811,429.37	\$121.65	1	6.00	\$5,811,429.37	\$5,811,429.37

Table 1
 FERC Account 376 - Gas Distribution Mains
 Detailed Data for Minimum System Study
 Based on Historical Year Ending December 31, 2021

Company	Product	Account	Retirement Unit Code	Retirement Unit Description	Year	PowerPlant Quantity	Actual Total Cost	Actual Unit Cost	Escalated Total Cost	Escalated Unit Cost	Material	Size	Cost (Current or Historic)	Cost (Current or Historic)
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	2018	24662	\$3,418,579.79	\$138.62	\$3,837,308.92	\$155.60	1	8.00	\$3,837,308.92	\$3,837,308.92
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	2019	213	\$257,853.55	\$1,210.58	\$280,216.04	\$1,315.57	0	1.00	\$280,216.04	\$280,216.04
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	2019	400747	\$6,701,929.97	\$16.72	\$7,283,159.22	\$18.17	0	2.00	\$7,283,159.22	\$7,283,159.22
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	2019	9	\$19,646.40	\$2,182.93	\$21,350.26	\$2,372.25	0	3.00	\$21,350.26	\$21,350.26
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	2019	153358	\$5,383,924.60	\$35.11	\$5,850,849.00	\$38.15	0	4.00	\$5,850,849.00	\$5,850,849.00
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	2019	51227	\$2,847,911.60	\$55.59	\$3,094,898.68	\$60.42	0	6.00	\$3,094,898.68	\$3,094,898.68
Minnesota Energy Resrcs	Gas	37600-Mains	182	Plastic 8 in	2019	3557	\$518,162.54	\$145.67	\$563,100.53	\$158.31	0	8.00	\$563,100.53	\$563,100.53
Minnesota Energy Resrcs	Gas	37600-Mains	183	Steel 1 1/2 in	2019	7	\$10,833.30	\$1,547.61	\$11,772.82	\$1,681.83	1	1.50	\$11,772.82	\$11,772.82
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	2019	3	\$6,093.55	\$2,031.18	\$6,622.02	\$2,207.34	1	1.25	\$6,622.02	\$6,622.02
Minnesota Energy Resrcs	Gas	37600-Mains	185	Steel 1 in	2019	9	\$13,920.24	\$1,546.69	\$15,127.48	\$1,680.83	1	1.00	\$15,127.48	\$15,127.48
Minnesota Energy Resrcs	Gas	37600-Mains	187	Steel 12 in	2019	12622	\$4,775,530.34	\$378.35	\$5,189,691.37	\$411.16	1	12.00	\$5,189,691.37	\$5,189,691.37
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	2019	1218	\$492,385.45	\$404.26	\$535,087.92	\$439.32	1	2.00	\$535,087.92	\$535,087.92
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	2019	16	\$43,280.34	\$2,705.02	\$47,033.86	\$2,939.62	1	3.00	\$47,033.86	\$47,033.86
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	2019	1586	\$334,501.66	\$210.91	\$363,511.53	\$229.20	1	4.00	\$363,511.53	\$363,511.53
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	2019	14000	\$813,067.82	\$58.08	\$883,581.66	\$63.11	1	6.00	\$883,581.66	\$883,581.66
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	2019	5758	\$1,317,207.75	\$228.76	\$1,431,443.48	\$248.60	1	8.00	\$1,431,443.48	\$1,431,443.48
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	2020	134	\$230,314.19	\$1,718.76	\$241,318.95	\$1,800.89	0	1.00	\$241,318.95	\$241,318.95
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	2020	387169	\$6,914,072.54	\$17.86	\$7,244,437.77	\$18.71	0	2.00	\$7,244,437.77	\$7,244,437.77
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	2020	832	\$205,251.46	\$246.70	\$215,058.72	\$258.48	0	3.00	\$215,058.72	\$215,058.72
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	2020	142780	\$4,763,545.61	\$33.36	\$4,991,155.25	\$34.96	0	4.00	\$4,991,155.25	\$4,991,155.25
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	2020	30490	\$1,814,919.41	\$59.53	\$1,901,639.12	\$62.37	0	6.00	\$1,901,639.12	\$1,901,639.12
Minnesota Energy Resrcs	Gas	37600-Mains	182	Plastic 8 in	2020	14400	\$1,761,255.22	\$122.31	\$1,845,410.75	\$128.15	0	8.00	\$1,845,410.75	\$1,845,410.75
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	2020	8	\$6,071.21	\$758.90	\$6,361.30	\$795.16	1	1.25	\$6,361.30	\$6,361.30
Minnesota Energy Resrcs	Gas	37600-Mains	185	Steel 1 in	2020	4	\$1,780.24	\$445.06	\$1,865.30	\$466.33	1	1.00	\$1,865.30	\$1,865.30
Minnesota Energy Resrcs	Gas	37600-Mains	186	Steel 10 in	2020	14	\$1,033.42	\$73.82	\$1,082.80	\$77.34	1	10.00	\$1,082.80	\$1,082.80
Minnesota Energy Resrcs	Gas	37600-Mains	187	Steel 12 in	2020	46262	\$16,166,199.85	\$349.45	\$16,938,646.26	\$366.15	1	12.00	\$16,938,646.26	\$16,938,646.26
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	2020	4180	\$420,629.29	\$100.63	\$440,727.64	\$105.44	1	2.00	\$440,727.64	\$440,727.64
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	2020	42	\$70,390.54	\$1,675.97	\$73,753.93	\$1,756.05	1	3.00	\$73,753.93	\$73,753.93
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	2020	1845	\$315,567.30	\$171.04	\$330,645.59	\$179.21	1	4.00	\$330,645.59	\$330,645.59
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	2020	15456	\$613,611.61	\$39.70	\$642,930.95	\$41.60	1	6.00	\$642,930.95	\$642,930.95
Minnesota Energy Resrcs	Gas	37600-Mains	197	Steel 8 in	2020	1229	\$856,728.03	\$697.09	\$897,663.84	\$730.40	1	8.00	\$897,663.84	\$897,663.84
Minnesota Energy Resrcs	Gas	37600-Mains	175	Plastic 1 in	2021	18	\$28,047.84	\$1,558.21	\$28,047.84	\$1,558.21	0	1.00	\$28,047.84	\$28,047.84
Minnesota Energy Resrcs	Gas	37600-Mains	176	Plastic 2 in	2021	81867	\$1,771,132.22	\$21.63	\$1,771,132.22	\$21.63	0	2.00	\$1,771,132.22	\$1,771,132.22
Minnesota Energy Resrcs	Gas	37600-Mains	177	Plastic 3 in	2021	13	\$13,389.15	\$1,029.93	\$13,389.15	\$1,029.93	0	3.00	\$13,389.15	\$13,389.15
Minnesota Energy Resrcs	Gas	37600-Mains	179	Plastic 4 in	2021	21886	\$736,756.98	\$33.66	\$736,756.98	\$33.66	0	4.00	\$736,756.98	\$736,756.98
Minnesota Energy Resrcs	Gas	37600-Mains	181	Plastic 6 in	2021	8763	\$537,703.15	\$61.36	\$537,703.15	\$61.36	0	6.00	\$537,703.15	\$537,703.15
Minnesota Energy Resrcs	Gas	37600-Mains	182	Plastic 8 in	2021	2489	\$404,410.97	\$162.48	\$404,410.97	\$162.48	0	8.00	\$404,410.97	\$404,410.97
Minnesota Energy Resrcs	Gas	37600-Mains	184	Steel 1 1/4 in	2021	8	\$51,406.84	\$6,425.86	\$51,406.84	\$6,425.86	1	1.25	\$51,406.84	\$51,406.84
Minnesota Energy Resrcs	Gas	37600-Mains	185	Steel 1 in	2021	3	\$16,480.16	\$5,493.39	\$16,480.16	\$5,493.39	1	1.00	\$16,480.16	\$16,480.16
Minnesota Energy Resrcs	Gas	37600-Mains	191	Steel 2 in	2021	605	\$125,965.94	\$208.21	\$125,965.94	\$208.21	1	2.00	\$125,965.94	\$125,965.94
Minnesota Energy Resrcs	Gas	37600-Mains	193	Steel 3 in	2021	23	\$36,747.59	\$1,597.72	\$36,747.59	\$1,597.72	1	3.00	\$36,747.59	\$36,747.59
Minnesota Energy Resrcs	Gas	37600-Mains	195	Steel 4 in	2021	1010	\$284,089.35	\$281.28	\$284,089.35	\$281.28	1	4.00	\$284,089.35	\$284,089.35
Minnesota Energy Resrcs	Gas	37600-Mains	196	Steel 6 in	2021	43	\$45,641.42	\$1,061.43	\$45,641.42	\$1,061.43	1	6.00	\$45,641.42	\$45,641.42

Derivation of Transportation Administration Fee
Historical Year Ending December 31, 2021

Line No.	Activity	Total	
		Cost	Loaded Cost
1	Billing & Customer Accounting Support	\$ 11,940	\$ 17,785
2	Gas Supply Support	\$ 52,270	\$ 77,858
3	Administration Support	\$ 20,571	\$ 30,641
4	Operational Support	\$ 122,096	\$ 181,866
6	Information Technology Support	\$ 42,257	\$ 62,944
7			
8	Total Annual Cost (Corporate-wide)	\$ 249,134	\$ 371,093
9			
10	Number of MERC Transportation Meters	2,998	2,998
11			
12	MERC Combined Service Territory Annual Administration Fee	\$ 83.11	\$ 123.80

Account 381 - Gas Meters Cost Information
Historical Year Ending December 31, 2021

	[A]	[B]	[C]	[D]	[E]
LINE NO	PGA	RATE CLASS	METERS	TOTAL METER+DEVICE REPLACEMENT COST	COST PER METER
1	NNG	Residential	190,039	\$75,056,729	\$394.95
2	NNG	Class 1	10,679	\$5,347,291	\$500.73
3	NNG	Class 2	10,779	\$21,851,451	\$2,027.25
4	NNG	Class 3	288	\$1,393,487	\$4,839.10
5	NNG	Class 4	20	\$110,083	\$5,504.17
6	NNG	Class 5	42	\$739,176	\$17,599.42
7	NNG	Agriculture Class 1	206	\$732,932	\$3,563.69
8	NNG	Agriculture Class 2	168	\$758,653	\$4,527.24
9	NNG	Agriculture Class 3	2	\$9,975	\$4,987.72
10	NNG	Power Generation Class 1	18	\$32,301	\$1,794.48
11	NNG	Power Generation Class 2	-	\$0	\$1,794.48
12	NNG				
13					
14	Consolidated	Residential	31,998	\$12,705,940	\$397.09
15	Consolidated	Class 1	2,425	\$1,039,823	\$428.76
16	Consolidated	Class 2	3,321	\$6,068,958	\$1,827.72
17	Consolidated	Class 3	90	\$346,576	\$3,847.31
18	Consolidated	Class 4	6	\$15,901	\$2,650.24
19	Consolidated	Class 5	14	\$37,103	\$2,650.24
20	Consolidated	Agriculture Class 1	18	\$53,704	\$2,955.13
21	Consolidated	Agriculture Class 2	15	\$39,209	\$2,650.24
22	Consolidated	Agriculture Class 3	-	\$0	\$0.00
23	Consolidated	Power Generation Class 1	4	\$5,971	\$1,492.70
24	Consolidated	Power Generation Class 2	-	\$0	\$1,492.70
25					

NOTE: This data is based upon the historical period ending December 31, 2021
NOTE: Classes without historical meter data the nears proxy meter class was used, if applicabe to the CCROSS

Account 381 - Gas Meters Cost Information - DETAILED

Historical Year Ending December 31, 2021

MERC has over 1000 pages of workpapers detailing meter data used to construct the weighting factors that are utilized within the Meter Allocation Factor in the Class Cost of Service Study.

This data is available upon request in electronic format.

Meter Data for Breakpoint Analysis
Historical Year Ending December 31, 2021

	[A]	[B]	[C]	[D]	[E]
LINE NO	PGA	RATE CLASS	METERS	TOTAL METER+DEVICE REPLACEMENT COST	COST PER METER
1	NNG	Residential	190,039	\$75,056,729	\$394.95
2	NNG	Class 1	10,679	\$5,347,291	\$500.73
3	NNG	Class 2	10,779	\$21,851,451	\$2,027.25
4	NNG	Class 3	288	\$1,393,487	\$4,839.10
5	NNG	Class 4	20	\$110,083	\$5,504.17
6	NNG	Class 5	42	\$739,176	\$17,599.42
7	NNG	Agriculture Class 1	206	\$732,932	\$3,563.69
8	NNG	Agriculture Class 2	168	\$758,653	\$4,527.24
9	NNG	Agriculture Class 3	2	\$9,975	\$4,987.72
10	NNG	Power Generation Class 1	18	\$32,301	\$1,794.48
11	NNG	Power Generation Class 2	-	\$0	\$0.00
12	NNG				
13					
14	Consolidated	Residential	31,998	\$12,705,940	\$397.09
15	Consolidated	Class 1	2,425	\$1,039,823	\$428.76
16	Consolidated	Class 2	3,321	\$6,068,958	\$1,827.72
17	Consolidated	Class 3	90	\$346,576	\$3,847.31
18	Consolidated	Class 4	6	\$15,901	\$2,650.24
19	Consolidated	Class 5	14	\$37,103	\$2,650.24
20	Consolidated	Agriculture Class 1	18	\$53,704	\$2,955.13
21	Consolidated	Agriculture Class 2	15	\$39,209	\$2,650.24
22	Consolidated	Agriculture Class 3	-	\$0	\$0.00
23	Consolidated	Power Generation Class 1	4	\$5,971	\$1,492.70
24	Consolidated	Power Generation Class 2	-	\$0	\$0.00
25					

NOTE: This data is based upon the historical period ending December 31, 2021

Therms and Customer Data for Breakpoint Analysis
Historical Year Ending December 31, 2021

	2021 Historical		2022 Bridge Year		2023 Test Year	
	<u>Total Therms</u>	<u>Average Customer Counts</u>	<u>Total Therms</u>	<u>Average Customer Counts</u>	<u>Total Therms</u>	<u>Average Customer Counts</u>
NNG SALES						
[NNG] General Service Residential	149,412,412	188,052	173,686,835	188,981	160,515,667	189,287
[NNG] Farm Tap Residential	1,970,860	1,259	1,768,942	1,242	1,889,366	1,240
[NNG] General Service Class 1	5,714,930	7,494	8,149,844	7,602	6,557,648	7,542
[NNG] General Service Class 2	69,075,716	10,063	82,645,764	10,023	75,837,707	10,127
[NNG] General Service Class 3	7,046,096	51	7,924,502	50	7,625,468	51
[NNG] Farm Tap Class 1	125,283	108	143,481	113	153,504	114
[NNG] Farm Tap Class 2	2,712,415	224	2,365,526	210	2,419,298	211
[NNG] Farm Tap Class 3	650,667	4	773,827	2	747,936	2
[NNG] Interruptible Class 2	6,248,167	170	7,337,317	162	6,958,564	154
[NNG] Interruptible Class 3	9,744,600	49	10,369,846	45	10,732,921	44
[NNG] Agricultural Grain Dryer Class 1	685,739	65	692,802	76	717,492	76
[NNG] Agricultural Grain Dryer Class 2	2,887,101	85	2,798,074	67	2,943,146	64
[NNG] Agricultural Grain Dryer Class 3	6,501	1	-	0	-	-
[NNG] Firm/Interruptible Class 2	81,543	2	45,476	1	85,598	1
[NNG] Electric Generation Class 1	97,600	9	82,365	9	102,746	9
[NNG] Electric Generation Class 2	8,482	0	-	-	-	-
CONSOLIDATED SALES						
[Cons] General Service Residential	25,850,931	31,859	30,997,615	32,356	28,015,021	32,593
[Cons] General Service Class 1	1,912,593	2,289	2,565,390	2,313	2,027,473	2,304
[Cons] General Service Class 2	20,449,717	3,175	24,627,009	3,174	21,262,824	3,195
[Cons] General Service Class 3	1,616,857	13	1,700,172	12	1,592,997	13
[Cons] Interruptible Class 2	1,641,405	45	1,829,325	43	1,645,860	40
[Cons] Interruptible Class 3	1,314,643	10	1,395,897	8	1,402,534	7
[Cons] Interruptible Class 4	2,222,008	2	2,575,067	2	2,441,944	2
[Cons] Agricultural Grain Dryer Class 1	41,563	7	53,580	9	53,005	9
[Cons] Agricultural Grain Dryer Class 2	203,660	9	196,197	7	201,357	7
[Cons] Firm/Interruptible Class 2	254,568	4	223,911	4	240,522	4
[Cons] Electric Generation Class 1	12,799	1	14,458	1	13,644	1
NNG TRANSPORT						
[NNG] Transport Class 2 (Firm)	1,784,098	33	2,335,303	33	1,737,943	32
[NNG] Transport Class 2 (Interruptible)	1,195,909	21	1,741,115	20	1,434,393	20
[NNG] Transport Class 3 (Firm)	5,592,845	28	6,708,452	24	5,495,990	23
[NNG] Transport Class 3 (Interruptible)	15,382,633	39	18,126,959	38	19,092,932	38
[NNG] Transport Class 4 (Firm)	1,383,740	1	1,357,312	1	1,236,385	1
[NNG] Transport Class 4 (Interruptible)	9,178,365	7	9,706,594	7	12,139,803	7
[NNG] Transport Class 5 (Interruptible)	9,250,576	3	9,339,478	4	9,030,592	4
[NNG] Transport Class 5 CIP Exempt (Firm)	6,847,663	1	6,812,596	1	6,899,557	1
[NNG] Transport Class 5 CIP Exempt (Interruptible)	256,221,362	12	247,021,356	8	251,552,507	6
[NNG] Firm/Interruptible Class 2 Transport	273,787	6	446,302	6	397,233	6
[NNG] Firm/Interruptible Class 3 Transport	6,085,307	19	8,146,149	18	8,777,361	17
[NNG] Firm/Interruptible Class 4 Transport	3,099,556	2	4,247,298	2	4,496,130	2
[NNG] Firm/Interruptible Class 5 Transport	4,352,900	1	4,452,401	1	4,264,723	1
[NNG] Firm/Interruptible Class 5 Transport CIP Exempt	58,840,286	5	60,835,990	5	58,639,852	5
[NNG] Transport Electric Generation Class 2 (Interruptible)	1,608,109	1	984,043	1	1,307,632	-
[NNG] Transport Electric Generation Class 2 CIP Exempt (Firm)	64,692,312	1	63,926,187	1	61,911,844	-
[NNG] Transport Electric Generation Class 2 CIP Exempt (Interruptible)	3,597,807	1	2,345,079	1	2,506,299	1
[NNG] Transport Resale	228,161	1	393,223	1	328,989	1
[NNG] Transport Flex (Cust A)	7,710,267	1	5,214,606	1	4,705,727	1
[NNG] Transport Flex (Cust F)	3,968,929	3	4,085,716	3	3,922,750	3
[NNG] Transport Flex (Cust G)	1,239,156	1	1,341,702	1	1,249,960	1
CONSOLIDATED TRANSPORT						
[Cons] Transport Class 2 (Firm)	1,578,893	34	2,018,086	33	1,506,042	33
[Cons] Transport Class 2 (Interruptible)	465,464	7	664,454	7	495,330	7
[Cons] Transport Class 2 CIP Exempt (Firm)	10,241	0	62,045	1	60,185	1
[Cons] Transport Class 3 (Firm)	4,780,614	19	5,584,989	17	4,619,969	16
[Cons] Transport Class 3 (Interruptible)	3,403,340	14	4,186,237	14	4,313,439	14
[Cons] Transport Class 4 (Firm)	1,623,630	1	1,584,722	1	1,440,128	1
[Cons] Transport Class 4 (Interruptible)	1,008,041	1	1,263,837	1	1,505,000	1
[Cons] Transport Class 5 (Interruptible)	9,860,441	2	6,869,432	1	4,743,731	1
[Cons] Transport Class 5 CIP Exempt (Firm)	46,528,028	5	50,813,185	3	47,101,307	2
[Cons] Firm/Interruptible Class 3 Transport	1,106,661	2	1,073,389	2	470,213	2
[Cons] Firm/Interruptible Class 5 Transport CIP Exempt	11,536,119	1	12,453,791	1	12,020,535	1

Therms and Customer Data for Breakpoint Analysis
Historical Year Ending December 31, 2021

Therms and Customer Data for Breakpoint Analysis
Historical Year Ending December 31, 2021

Workpaper 6 - Breakpoint Analysis Therm and Customer Data

Page 3 of 4

	Total Therms			Average Customer Counts		
	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
Class 1	7,752,806	10,858,715	8,738,625	9,891	10,028	9,959
Class 2	105,771,924	126,341,633	114,081,499	13,783	13,717	13,831
Class 3	56,952,422	66,383,643	65,200,748	248	231	229
Class 4	18,515,341	20,734,829	23,259,391	14	14	14
Class 5	416,355,728	409,240,253	404,131,243	35	29	26
Ag. Class 1	727,302	746,382	770,496	72	85	85
Ag. Class 2	3,090,761	2,994,271	3,144,503	94	73	71
Ag. Class 3	6,501	-	-	1	0	-
Power Gen. Class 1	110,399	96,823	116,390	10	10	10
Power Gen. Class 2	69,906,710	67,255,310	65,725,775	3	3	1

	Total Therms				
	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2021-2023 Avg.</u>	<u>2021 & 2023 Avg.</u>
Class 1	784	1,083	877	915	831
Class 2	7,674	9,210	8,248	8,376	7,962
Class 3	229,288	287,698	285,240	266,404	256,102
Class 4	1,322,210	1,523,155	1,710,510	1,516,694	1,513,508
Class 5	11,952,796	14,031,094	15,543,509	13,663,636	13,487,457
Ag. Class 1	10,076	8,806	9,065	9,276	9,529
Ag. Class 2	32,896	40,771	44,289	38,715	37,800
Ag. Class 3	6,501	-	-	-	-
Power Gen. Class 1	10,930	10,103	11,639	10,902	11,283
Power Gen. Class 2	20,972,013	22,418,437	65,725,775	27,666,517	31,299,804

Therms and Customer Data for Breakpoint Analysis
Historical Year Ending December 31, 2021

Minimum Size Study - Demand Allocation Adjustment Calculations
Worksheet 1

Line			
No.	<u>Year</u>	<u>Month</u>	<u>C&I Therms</u>
1	2019	7	2,517,735
2	2019	8	2,719,109
3	2019	9	3,643,650
4	2019	10	9,504,966
5	2019	11	16,578,767
6	2019	12	18,898,858
7	2020	1	18,247,599
8	2020	2	16,133,308
9	2020	3	11,435,880
10	2020	4	7,863,036
11	2020	5	3,613,840
12	2020	6	2,544,594
13	2020	7	2,958,831
14	2020	8	1,826,665
15	2020	9	3,590,664
16	2020	10	9,268,932
17	2020	11	13,047,333
18	2020	12	17,554,339
19	2021	1	18,871,133
20	2021	2	18,273,192
21	2021	3	10,632,139
22	2021	4	7,556,348
23	2021	5	3,749,000
24	2021	6	2,689,749
25	2021	7	2,323,200
26	2021	8	2,300,433
27	2021	9	3,017,848
28	2021	10	6,710,106
29	2021	11	14,441,678
30	2021	12	22,192,433
31	2022	1	23,272,193
32	2022	2	19,472,244
33	2022	3	14,133,199
34	2022	4	9,227,106
35	2022	5	3,832,426
36			
37			

Source: 0_Model_Inputs_C&I_Class_1-3_Import_File

Minimum Size Study - Demand Allocation Adjustment Calculations
Worksheet 2

Line			
No.	Year	Month	CI CC Import
1	2019	7	22,494
2	2019	8	22,507
3	2019	9	22,654
4	2019	10	22,851
5	2019	11	22,907
6	2019	12	22,933
7	2020	1	22,947
8	2020	2	22,926
9	2020	3	22,899
10	2020	4	22,885
11	2020	5	22,846
12	2020	6	22,836
13	2020	7	22,762
14	2020	8	22,727
15	2020	9	22,781
16	2020	10	22,904
17	2020	11	22,980
18	2020	12	23,017
19	2021	1	23,060
20	2021	2	23,054
21	2021	3	23,041
22	2021	4	22,995
23	2021	5	22,955
24	2021	6	22,899
25	2021	7	22,894
26	2021	8	22,886
27	2021	9	22,919
28	2021	10	23,070
29	2021	11	23,166
30	2021	12	23,214
31	2022	1	23,225
32	2022	2	23,210
33	2022	3	23,173
34	2022	4	23,114
35	2022	5	23,069
36			
37			

Source: 0_Model_Inputs_C&I_Class_1-3_Import_File
CC: Customer Counts

Minimum Size Study - Demand Allocation Adjustment Calculations
Worksheet 3

Line							
No.	Year	Month	C&I UPC	Min.	Max.	Min/Max %	
1	2019	7	112				
2	2019	8	121				
3	2019	9	161				
4	2019	10	416				
5	2019	11	724				
6	2019	12	824				
7	2020	1	795				
8	2020	2	704				
9	2020	3	499				
10	2020	4	344				
11	2020	5	158				
12	2020	6	111	111	824	13.52%	
13	2020	7	130	111	824	13.52%	
14	2020	8	80	80	824	9.75%	
15	2020	9	158	80	824	9.75%	
16	2020	10	405	80	824	9.75%	
17	2020	11	568	80	824	9.75%	
18	2020	12	763	80	824	9.75%	
19	2021	1	818	80	824	9.75%	
20	2021	2	793	80	824	9.75%	
21	2021	3	461	80	824	9.75%	
22	2021	4	329	80	824	9.75%	
23	2021	5	163	80	824	9.75%	
24	2021	6	117	80	824	9.75%	
25	2021	7	101	80	824	9.75%	
26	2021	8	101	80	824	9.75%	
27	2021	9	132	80	824	9.75%	
28	2021	10	291	80	824	9.75%	
29	2021	11	623	80	824	9.75%	
30	2021	12	956	80	956	8.41%	
31	2022	1	1,002	80	1,002	8.02%	
32	2022	2	839	80	1,002	8.02%	
33	2022	3	610	80	1,002	8.02%	
34	2022	4	399	80	1,002	8.02%	
35	2022	5	166	80	1,002	8.02%	
36							
37							

Source: 0_Model_Inputs_C&I_Class_1-3_Import_File
UPC: Use Per Customer

Minimum Size Study - Demand Allocation Adjustment Calculations
Worksheet 4

Line				
<u>No.</u>	<u>Year</u>	<u>Month</u>	<u>Residential Therms</u>	
1	2018	1	48,077,920	
2	2018	2	33,221,825	
3	2018	3	26,018,717	
4	2018	4	20,053,931	
5	2018	5	4,884,564	
6	2018	6	729,044	
7	2018	7	2,417,140	
8	2018	8	2,442,079	
9	2018	9	4,231,658	
10	2018	10	11,822,861	
11	2018	11	19,050,590	
12	2018	12	27,952,853	
13	2019	1	40,435,709	
14	2019	2	35,522,965	
15	2019	3	28,938,326	
16	2019	4	14,682,697	
17	2019	5	7,784,953	
18	2019	6	6,023,004	
19	2019	7	5,142,434	
20	2019	8	2,425,782	
21	2019	9	3,261,644	
22	2019	10	12,347,468	
23	2019	11	22,218,753	
24	2019	12	28,584,551	
25	2020	1	38,651,932	
26	2020	2	31,395,493	
27	2020	3	19,735,199	
28	2020	4	16,218,241	
29	2020	5	8,102,044	
30	2020	6	3,124,864	
31	2020	7	3,687,010	
32	2020	8	4,242,649	
33	2020	9	3,737,998	
34	2020	10	13,435,692	
35	2020	11	17,235,022	
36	2020	12	30,980,656	
37	2021	1	32,230,956	
38	2021	2	36,388,822	
39	2021	3	18,669,010	
40	2021	4	15,521,012	
41	2021	5	6,402,117	
42	2021	6	3,124,075	
43	2021	7	3,060,162	
44	2021	8	2,871,599	
45	2021	9	3,405,333	
46	2021	10	7,513,015	
47	2021	11	16,278,351	
48	2021	12	31,769,751	
49	2022	1	40,995,450	
50	2022	2	36,703,698	
51	2022	3	26,320,617	
52	2022	4	20,128,998	
53	2022	5	7,556,416	
54				
55				

Source: 0_Model Inputs_Actual_ BW Sales 2023B

Minimum Size Study - Demand Allocation Adjustment Calculations
Worksheet 5

Line No.	Year	Month	Residential_CC
1	2018	1	211,799
2	2018	2	211,878
3	2018	3	211,983
4	2018	4	211,858
5	2018	5	211,628
6	2018	6	211,126
7	2018	7	211,010
8	2018	8	210,895
9	2018	9	210,904
10	2018	10	211,876
11	2018	11	213,481
12	2018	12	214,071
13	2019	1	214,208
14	2019	2	214,485
15	2019	3	214,511
16	2019	4	214,437
17	2019	5	213,686
18	2019	6	213,071
19	2019	7	212,832
20	2019	8	213,002
21	2019	9	213,313
22	2019	10	214,671
23	2019	11	216,408
24	2019	12	216,884
25	2020	1	217,033
26	2020	2	217,143
27	2020	3	217,160
28	2020	4	217,283
29	2020	5	217,390
30	2020	6	217,381
31	2020	7	217,570
32	2020	8	217,731
33	2020	9	218,058
34	2020	10	218,468
35	2020	11	219,061
36	2020	12	219,523
37	2021	1	219,864
38	2021	2	220,111
39	2021	3	220,215
40	2021	4	220,295
41	2021	5	220,423
42	2021	6	220,441
43	2021	7	220,536
44	2021	8	220,693
45	2021	9	220,389
46	2021	10	220,719
47	2021	11	221,515
48	2021	12	222,019
49	2022	1	222,191
50	2022	2	222,367
51	2022	3	222,426
52	2022	4	222,531
53	2022	5	222,156
54			
55			

Source: 0_Model_Inputs_Actual_BW_Customers_2023B
CC: Customer Counts

Minimum Size Study - Demand Allocation Adjustment Calculations
Worksheet 6

Line No.	Year	Month	Resident UPC	Min.	Max.	Min/Max %
1	2019	7	215.9503478			
2	2019	8	153.3414428			
3	2019	9	126.4181159			
4	2019	10	125.9384918			
5	2019	11	91.51440764			
6	2019	12	83.8587797			
7	2020	1	88.32708257			
8	2020	2	79.44276507			
9	2020	3	67.01170511			
10	2020	4	83.85505751			
11	2020	5	95.90283892			
12	2020	6	128.7317254	67	216	31.03%
13	2020	7	183.1225081	67	216	31.03%
14	2020	8	157.4525323	67	216	31.03%
15	2020	9	137.0842236	67	216	31.03%
16	2020	10	100.9165259	67	216	31.03%
17	2020	11	88.02399364	67	216	31.03%
18	2020	12	99.86675599	67	216	31.03%
19	2021	1	101.7989852	67	216	31.03%
20	2021	2	87.68671113	67	216	31.03%
21	2021	3	58.78378469	59	216	27.22%
22	2021	4	83.74700411	59	216	27.22%
23	2021	5	108.4869157	59	216	27.22%
24	2021	6	130.4275117	59	216	27.22%
25	2021	7	170.7816635	59	216	27.22%
26	2021	8	140.3827273	59	216	27.22%
27	2021	9	94.77316884	59	216	27.22%
28	2021	10	95.39446866	59	216	27.22%
29	2021	11	93.71507055	59	216	27.22%
30	2021	12	105.227858	59	216	27.22%
31	2022	1	111.9591478	59	216	27.22%
32	2022	2	98.42614045	59	216	27.22%
33	2022	3	74.08333453	59	216	27.22%
34	2022	4	93.80996178	59	216	27.22%
35	2022	5	87.00882823	59	216	27.22%
36						
37						
38						

Source: Calculated from worksheets four and five.

UPC: Use Per Customer

Minimum Size Study - Demand Allocation Adjustment Calculations
Worksheet 7

Line							
No.		2021 Sales	Source:	% of Total	Min/Max Ratio	Source:	Weighted Min/Max Ratios
1	Residentia	177,234,202	Worksheet #4 Lines 37-48	61.12%	27.22%	Worksheet #6 Line 35	16.64%
2	C&I	112,757,258	Worksheet #1 Lines 19-30	38.88%	8.02%	Worksheet #3 Line 35	3.12%
3	Total	289,991,460					19.76%
4							
5							

Sources: Worksheets #1, 3, 4, and 6

Translation of Distribution Operation & Maintenance Accounts 870-894 to Plant Accounts 374-38
Forecasted Test Year Ending December 31, 202

Line No.	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]	[O]	[P]	[Q]	[R]	[R]	[S]	[T]
1																					
2																					
3																					
4	Land and Land Rights	374	1,016,844	0.00133																	
5	Structures and Improvements	375	-	-																	
6	Mains	376	359,109,106	0.47020					359,109,106	0.628718											
7	Compressor Station Equipment	377	-	-																	
8	Measuring & Regulation Equipment - General	378	19,107,605	0.02502																	
9	Measuring & Regulation Equipment - Gate Station	379	28,335,627	0.03710																	
10	Services	380	212,067,489	0.27767					212,067,489	0.371282											
11	Meters	381.0	100,219,620	0.13122		100,219,620		0.812789													
12	Automated Meter Reading - Purchases	381.2	-	-		-		-													
13	Demand Devices - Purchases	381.3	-	-		-		-													
14	Meter Connections & Installations	382.0	-	-		-		-													
15	Automated Meter Installations	382.2	-	-		-		-													
16	Demand Device - Installations	382.3	-	-		-		-													
17	House Regulators	383	19,952,253	0.02612		19,952,253		0.161814													
18	Industrial Metering & Regulating Station Equip.	385	3,131,502	0.00410		3,131,502		0.025397													
19	Other Prop on Cust Prem	386	-	-		-		-													
20	Intangible	302	3,969,434	0.00520		-		-													
21	Intangible	303	16,829,883	0.02204		-		-													
22			763,739,384			123,303,376				571,176,595											
23																					
24																					
25																					
26																					
27																					
28																					
29	Distribution O&M Accts are mapped to the appropriate, corresponding Plant Series of Distribution Accounts																				
30	This helps to keep the COSS on an apples-to-apples comparison basis.																				
31																					
32																					
33																					
34																					
35																					
36																					
37	FERC Acct:	374	375	376	377	378	379	380	381.0	381.2	381.3	382.0	382.2	382.3	383	385	386	302	303	Alloc Method	
38	(870)Superv & Engr	0.00133	-	0.47020	-	0.02502	0.03710	0.27767	0.13122	-	-	-	-	-	0.02612	0.00410	-	0.00520	0.02204	(A)	
39	(871)Load Dispatch	0.00133	-	0.47020	-	0.02502	0.03710	0.27767	0.13122	-	-	-	-	-	0.02612	0.00410	-	0.00520	0.02204	(A)	
40	(872)Comp Labr & Ex	1.00000																		Direct	
41	(873)Comp Fuel & Pw	1.00000																		Direct	
42	(874)Mains&Serv Exp				0.62872					0.37128										(C)	
43	(875)Ms&Reg Exp Gen					1.00000														Direct	
44	(877)Ms&Reg Exp Gat						1.00000													Direct	
45	(878)Mtr&Hous Regul								0.81279	-	-				0.16181	0.02540				(B)	
46	(879)Cust Install								0.81279	-	-				0.16181	0.02540				(B)	
47	(880)Other	0.00133	-	0.47020	-	0.02502	0.03710	0.27767	0.13122	-	-	-	-	-	0.02612	0.00410	-	0.00520	0.02204	(A)	
48	(881)Rents	0.00133	-	0.47020	-	0.02502	0.03710	0.27767	0.13122	-	-	-	-	-	0.02612	0.00410	-	0.00520	0.02204	(A)	
49	(885)Superv & Engr.	0.00133	-	0.47020	-	0.02502	0.03710	0.27767	0.13122	-	-	-	-	-	0.02612	0.00410	-	0.00520	0.02204	(A)	
50	(886)Struct & Imprv		1.00000																	Direct	
51	(887)Mains			1.00000																Direct	
52	(888)Comp Stat Equip	1.00000																		Direct	
53	(889)Ms&Reg Exp Gen					1.00000														Direct	
54	(890)Ms&Reg Exp Indust					1.00000														Direct	
55	(891)Ms&Reg Exp Gat						1.00000													Direct	
56	(892)Services							1.00000												Direct	
57	(893)Mtr&Hous Regul								0.81279	-	-				0.16181	0.02540				(B)	
58	(894)Other Equipmt	0.00133	-	0.47020	-	0.02502	0.03710	0.27767	0.13122	-	-	-	-	-	0.02612	0.00410	-	0.00520	0.02204	(A)	
59																					
60																					
61																					
62																					
63	FERC Acct:	374	375	376	377	378	379	380	381.0	381.2	381.3	382.0	382.2	382.3	383	385	386	302	303	Alloc Method	
64	(870)Superv & Engr	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(A)	-
65	(871)Load Dispatch	567	-	200,174	-	10,651	15,795	118,210	55,864	-	-	-	-	-	11,122	1,746	-	2,213	9,381	(A)	425,722
66	(872)Comp Labr & Ex	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Direct	-
67	(873)Comp Fuel & Pw	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Direct	-
68	(874)Mains&Serv Exp	-	-	3,215,498	-	-	1,898,873	-	-	-	-	-	-	-	-	-	-	-	-	(C)	5,114,371
69	(875)Ms&Reg Exp Gen	-	-	-	-	360,949	-	-	-	-	-	-	-	-	-	-	-	-	-	Direct	360,949
70	(877)Ms&Reg Exp Gat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Direct	-
71	(878)Mtr&Hous Regul	-	-	-	-	-	-	-	492,724	-	-	-	-	-	98,094	15,396	-	-	-	(B)	606,214
72	(879)Cust Install	-	-	-	-	-	-	-	67,983	-	-	-	-	-	13,534	2,124	-	-	-	(B)	83,641
73	(880)Other	7,062	-	2,494,093	-	132,707	196,797	1,472,856	696,048	-	-	-	-	-	138,573	21,749	-	27,569	116,887	(A)	5,304,340
74	(881)Rents	39	-	13,866	-	738	1,094	8,189	3,870	-	-	-	-	-	770	121	-	153	650	(A)	29,490
75	(885)Superv & Engr.	35	-	12,194	-	649	962	7,201	3,403	-	-	-	-	-	678	106	-	135	571	(A)	25,934
76	(886)Struct & Imprv	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Direct	-
77	(887)Mains	-	-	1,378,341	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Direct	1,378,341
78	(888)Comp Stat Equip	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Direct	-
79	(889)Ms&Reg Exp Gen	-	-	-	-	910,835	-	-	-	-	-	-	-	-	-	-	-	-	-	Direct	910,835
80	(890)Ms&Reg Exp Indust	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Direct	-
81	(891)Ms&Reg Exp Gat	-	-	-	-	-	453,218	-	-	-	-	-	-	-	-	-	-	-	-	Direct	453,218
82	(892)Services	-	-	-	-	-	-	4,568,687	-	-	-	-	-	-	-	-	-	-	-	Direct	4,568,687
83	(893)Mtr&Hous Regul	-	-	-	-	-	-	-	1,446,666	-	-	-	-	-	288,010	45,203	-	-	-	(B)	1,779,879
84	(894)Other Equipmt	148	-	52,429	-	2,790	4,137	30,961	14,632	-	-	-	-	-	2,913	457	-	580	2,457	(A)	111,504
85		7,851	-	7,366,596	-	1,419,318	672,003	8,104,977	2,781,189	-	-	-	-	-	553,694	86,902	-	30,649	129,947		21,153,126

Detail by Distribution Account
Forecasted Test Year Ending December 31, 2023

	[A]	[B]	[C]	[D]	[E]	[F]	[G]
Line No	Acct	Plant	AccDep-SL	AccDep-TS	DepExp-SL	CWIP	Dist O&M
1	374	1,016,844	401,860	143,941	24,462	-	7,851
2	375	-	(1,647)	-	(2,254)	-	-
3	376	359,109,106	95,784,916	50,830,207	6,425,474	9,984	7,366,596
4	377	-	-	-	-	-	-
5	378	19,107,605	4,847,050	2,704,809	658,734	5,492	1,419,318
6	379	28,335,627	5,463,702	4,010,740	1,138,185	-	672,003
7	380	212,067,489	86,716,494	30,017,624	5,192,964	-	8,104,977
8	381	100,219,620	18,563,839	14,185,732	4,197,633	66,659	2,781,189
9	382	-	-	-	-	-	-
10	383	19,952,253	11,383,363	2,824,389	307,765	-	553,694
11	385	3,131,502	896,192	443,252	94,393	-	86,902
12	301	-	-	-	-	-	-
13	302	3,969,434	3,967,852	561,900	3,740	-	30,649
14	303	16,829,883	6,885,292	2,382,383	1,121,998	-	129,947
15		<u>763,739,364</u>	<u>234,908,911</u>	<u>108,104,978</u>	<u>19,163,093</u>	<u>82,135</u>	<u>21,153,126</u>

18 NOTE: These figures do not include G&C allocations or A&G allocations

Gas Transportation Administration Costs
Historical Year Ending December 31, 2021

Gas Supply Labor Costs (Transportation Customer Load Balancing, etc)

	Hours/Yr	Total Costs/Utility	
MERC Labor (Hours per Year)	1250	\$52,270	\$41.82

Tech Support System Costs

DeMaxx and TherMaxx

MERC	\$29,286
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Pegasys (formerly Transportation Web Access)

MERC	\$0
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Customer Notification System

MERC	\$2,019
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Total

Allocated Gas Transportation Costs
MERC
\$52,270
\$19,803
\$0
\$768
\$72,841

Minnesota Energy Resources Corporation

Derivation of Allocation Factors

% Costs to Transportation Customers (Thermaxx & Demaxx) (2021 Actual)

Transport Customer Throughput (therms)	648,074,770	68%
Total Throughput (therms)	958,429,469	

% Costs to Transportation Customers (CNS Customers) (2016 Actual)

	No. Customers	% Customers
Transport Customers	286	38%
Interruptible Customers	466	62%
	<u>752</u>	100%

[illegible]