

IURC
PETITIONER'S
EXHIBIT NO. 15
DATE 6-23-83 REPORTER el

OFFICIAL
EXHIBITS

Petitioner's Exhibit 15

Exhibit 15

Schedule 1 Customer Cost Recovery

Schedule 2 Unit Rates

Schedule 3 Fire Protection Cost Recovery

Schedule 4 Phased Rate Plan and Projected Revenue

Schedule 5 Multi-Year Schedule of Rates and Charges

Schedule 6 Customer Impacts

Schedule 1 Customer Cost Recovery

Cost Components	Cost	Recovery %	Cost to be recovered by Customer Charge Recovered
Customer ¹	\$ 578,460	100%	\$ 578,460
			\$ 578,460

Billing Periods: 12

Meter Size	Meter Count ²	Total Annual Bills	Customer Charge ³
5/8	10,136	121,632	
3/4	179	2,148	
1	252	3,024	
1.5	102	1,224	
2	193	2,316	
3	20	240	
4	17	204	
6	5	60	
8	3	36	
Total	10,907	130,884	\$ 4.42

Revenue by Class

Meter Size	Residential	Customer Charge	Commercial	Customer Charge	Industrial	Customer Charge	Institutional	Customer Charge	Total Customer Charge
Meter Size	Total Annual Bills	Revenue	Total Annual Bills	Revenue	Total Annual Bills	Revenue	Total Annual Bills	Revenue	Revenue
5/8	110,484	\$ 488,300	9,516	\$ 42,057	192	\$ 849	1,440	\$ 6,364	537,570
3/4	984	\$ 4,349	1,020	\$ 4,508	24	\$ 106	120	\$ 530	9,493
1	396	\$ 1,750	2,064	\$ 9,122	156	\$ 689	408	\$ 1,803	13,365
1.5	36	\$ 159	840	\$ 3,712	36	\$ 159	312	\$ 1,379	5,410
2	12	\$ 53	1,128	\$ 4,985	144	\$ 636	1,032	\$ 4,561	10,236
3	0	\$ -	96	\$ 424	24	\$ 106	120	\$ 530	1,061
4	12	\$ 53	96	\$ 424	48	\$ 212	48	\$ 212	902
6	0	\$ -	24	\$ 106	24	\$ 106	12	\$ 53	265
8	24	\$ 106	0	\$ -	0	\$ -	12	\$ 53	159
Totals	111,948	\$ 494,770	14,784	\$ 65,340	648	\$ 2,864	3,504	\$ 15,486	\$ 578,460

¹ Cost for customer function/component for Phase I shown in Schedule 8 of Exhibit 14.² Based on test year billing data and assumes no growth consistent with Petitioner's Exhibits 10 and 11.³ Customer charge calculated by taking customer cost to be recovered divided by total number of annual bills.

Schedule 3 Fire Protection Cost Recovery

Cost Components	Cost
Public Fire ¹	\$ 489,905
Private Fire ²	\$ 131,927

Public Fire Protection

Billing Periods:		12					
Meter Size	Meter Count ³	Total Annual Bills	ERUs	Current Marion Scaling		Public Fire Cost ⁴	
5/8	10,099	121,188	10,099	1	\$	2.69	
3/4	177	2,124	177	1	\$	2.69	
1	242	2,904	619	3	\$	6.88	
1.5	91	1,092	524	6	\$	15.48	
2	175	2,100	1,790	10	\$	27.51	
3	18	216	414	23	\$	61.91	
4	16	192	655	41	\$	110.06	
6	6	72	552	92	\$	247.63	
8	2	24	327	164	\$	440.22	
10			-	NA	\$	-	
12			-	NA	\$	-	
	10,826	129,912	15,157				
	81						

Private Fire Protection

	Number of Services	Equivalent Factor ⁵ <i>based on line size</i>	Total Equivalents
No. Hydrants - Private	305	111.311	33,950
No. Sprinklers Heads Accounts	192	111.311	21,372
No. of Sprinkler Heads	168,795		

Billing Periods 1
Cost per Equivalent ⁶ \$2.38

Phase I Cost Calculation		
Per Hydrant	\$	265.45
Per Sprinkler Head	\$	0.30

¹ Cost for public fire cost component of Phase I show in Schedule 9 of Exhibit 14

² Cost for private fire cost component of Phase I shown in Schedule 9 of Exhibit 14

³ Based on test year billing data from Schedule 5 of Exhibit 14 and assumes no growth consistent with Petitioner's Exhibits 10 and 11, excludes irrigation and water 2 meters not charged public fire protection

⁴ Public Fire Charge for 5/8" calculated based on public fire cost divided by ERU's on a monthly basis, Remaining meter size charges are based on 5/8" meter charge and current Marion Scaling Factors

⁵ Flow capacity calculation shown in Schedule 7 of Exhibit 14

⁶ Private Fire Cost divided by total equivalents for hydrants and sprinkler head accounts. For one billing period or on annually

⁷ Calculation of equivalent factor for private hydrants and the cost per equivalent

⁸ Product of the number of sprinkler head accounts divided by total equivalents and the total private fire cost divided by number of sprinkler heads

Schedule 4 Phased Rate Plan and Projected Revenue

Line							
1	Water Financial Plan ¹		16.0%	10.5%	9.4%	8.6%	8.0%
			Phase I ²	Phase II ²	Phase III ²	Phase IV ²	Phase V ²
	Meter Size						
2	5/8"		\$4.42	\$4.88	\$5.34	\$5.80	\$6.27
3	3/4"		\$4.42	\$4.88	\$5.34	\$5.80	\$6.27
4	1"		\$4.42	\$4.88	\$5.34	\$5.80	\$6.27
5	1 1/2"		\$4.42	\$4.88	\$5.34	\$5.80	\$6.27
6	2"		\$4.42	\$4.88	\$5.34	\$5.80	\$6.27
7	3"		\$4.42	\$4.88	\$5.34	\$5.80	\$6.27
8	4"		\$4.42	\$4.88	\$5.34	\$5.80	\$6.27
9	6"		\$4.42	\$4.88	\$5.34	\$5.80	\$6.27
10	8"		\$4.42	\$4.88	\$5.34	\$5.80	\$6.27
11	Customer Charge Revenue - Residential		\$494,770	\$546,721	\$598,113	\$649,550	\$701,514
12	Customer Charge Revenue - Commercial		\$65,340	\$72,201	\$78,988	\$85,780	\$92,643
13	Base Charge Revenue - Industrial		\$2,864	\$3,165	\$3,462	\$3,760	\$4,061
14	Base Charge Revenue - Institutional		\$15,486	\$17,112	\$18,721	\$20,331	\$21,958
15	Total Customer Charge Revenue		\$578,460	\$639,199	\$699,283	\$759,422	\$820,175
		Units (CCF)	Phase I	Phase II	Phase III	Phase IV	Phase V
	Usage Rate (per CCF)						
16	Tier 1 - 0 - 1.33	151,665	\$3.96	\$4.26	\$4.43	\$4.48	\$4.48
17	Tier 2 - 1.34 - 6.67	318,686	\$3.43	\$3.76	\$3.98	\$4.28	\$4.48
18	Tier 3 - 6.67 - 100	300,831	\$2.81	\$3.23	\$3.72	\$4.09	\$4.48
19	Tier 4 - Over 100	275,520	\$2.01	\$2.49	\$3.09	\$3.71	\$4.48
20	Total Billable Units (CCF)	1,046,701					
21	Revenue (Tiers)		\$3,091,801	\$3,500,210	\$3,910,198	\$4,295,677	\$4,686,688
			Phase I	Phase II	Phase III	Phase IV	Phase V
	Public Fire Protection						
	Meter Size						
22	5/8"		\$3.27	\$3.39	\$3.51	\$3.61	\$3.72
23	3/4"		\$3.27	\$3.39	\$3.51	\$3.61	\$3.72
24	1"		\$8.38	\$8.67	\$8.97	\$9.24	\$9.52
25	1 1/2"		\$18.86	\$19.52	\$20.21	\$20.81	\$21.44
26	2"		\$33.52	\$34.70	\$35.91	\$36.99	\$38.10
27	3"		\$75.44	\$78.08	\$80.80	\$83.23	\$85.73
28	4"		\$134.11	\$138.81	\$143.67	\$147.98	\$152.42
29	6"		\$301.75	\$312.31	\$323.24	\$332.94	\$342.93
30	8"		\$536.44	\$555.22	\$574.65	\$591.89	\$609.65
31	Public Fire Protection Revenue		\$595,198	\$616,720	\$638,457	\$656,960	\$676,894

Schedule 4 Phased Rate Plan and Projected Revenue

			Phase I	Phase II	Phase III	Phase IV	Phase V
Private Fire Protection							
32	Hydrant		\$ 413.06	\$ 413.06	\$ 413.06	\$ 413.06	\$ 413.06
33	Sprinkler Head		\$ 0.43	\$ 0.43	\$ 0.43	\$ 0.43	\$ 0.44
34	Private Fire Protection Revenue		\$198,565	\$198,565	\$198,565	\$198,565	\$200,253
	Projected Revenues	Current	Phase I	Phase II	Phase III	Phase IV	Phase V
35	Residential Public Fire Protection	\$354,031	\$383,384	\$397,420	\$411,479	\$423,233	\$436,121
36	Base Residential		\$494,770	\$546,721	\$598,113	\$649,550	\$701,514
37	Volume Residential	\$1,960,077	\$1,787,647	\$1,967,566	\$2,111,841	\$2,248,848	\$2,355,593
38	Total Residential Revenue	\$2,314,108	\$2,665,801	\$2,911,707	\$3,121,433	\$3,321,631	\$3,493,228
39	% Change		15.2%	9.2%	7.2%	6.4%	5.2%
40	Commercial Public Fire Protection	\$122,402	\$132,761	\$137,467	\$142,285	\$146,498	\$150,922
41	Base Commercial		\$65,340	\$72,201	\$78,988	\$85,780	\$92,643
42	Volume Commercial	\$576,452	\$608,077	\$701,824	\$806,239	\$900,127	\$1,001,958
43	Total Commercial Revenue	\$698,854	\$806,178	\$911,492	\$1,027,512	\$1,132,406	\$1,245,523
44	% Change		15.4%	13.1%	12.7%	10.2%	10.0%
45	Industrial Public Fire Protection	\$21,202	\$23,009	\$23,817	\$24,649	\$25,388	\$26,151
46	Base Industrial		\$2,864	\$3,165	\$3,462	\$3,760	\$4,061
47	Volume Industrial	\$178,409	\$219,579	\$266,881	\$324,565	\$382,328	\$452,499
48	Total Industrial Revenue	\$199,611	\$245,452	\$293,862	\$352,676	\$411,476	\$482,710
49	% Change		23.0%	19.7%	20.0%	16.7%	17.3%
50	Institutional Public Fire Protection	\$68,700	\$74,546	\$77,169	\$79,867	\$82,257	\$84,731
51	Base Institutional		\$15,486	\$17,112	\$18,721	\$20,331	\$21,958
52	Volume Institutional	\$419,617	\$476,498	\$563,939	\$667,553	\$764,373	\$876,638
53	Total Institutional Revenue	\$488,317	\$566,530	\$658,220	\$766,141	\$866,961	\$983,327
54	% Change		16.0%	16.2%	16.4%	13.2%	13.4%
55	Private Fire Projection	\$198,565	\$198,565	\$198,565	\$198,565	\$198,565	\$200,253
56	Total User Rate Revenue	\$3,899,455	\$4,482,526	\$4,937,847	\$5,466,326	\$5,931,039	\$6,405,041
57	Revenue Requirements ¹	\$3,888,932	\$4,509,754	\$4,984,299	\$5,452,793	\$5,922,388	\$6,394,828
58	% Change		16.0%	10.5%	9.4%	8.6%	8.0%

¹ Sum of Deficit and Adjustable Operating Revenues on Page 17, Petitioner's Exhibit 11.

² Customer charge for each escalated with overall percentage increase required by phase per Petitioner's Exhibit 11.

Schedule 5 Multi-Year Schedule of Rates and Charges**Water Rates**

			Phased Rates					
Customer Class			Phase I	Phase II	Phase III	Phase IV	Phase V	
ALL			ALL	ALL	ALL	ALL	ALL	
Minimum Use								
By Meter Size								
Meter Charges with	Minimum Usage (CCF)		Meter Charges, No Minimum Usage Included					
5/8"	3	\$ 11.06	\$ 4.42	\$ 4.88	\$ 5.34	\$ 5.80	\$ 6.27	
3/4"	5	\$ 18.00	\$ 4.42	\$ 4.88	\$ 5.34	\$ 5.80	\$ 6.27	
1"	10	\$ 31.63	\$ 4.42	\$ 4.88	\$ 5.34	\$ 5.80	\$ 6.27	
1 1/2"	19	\$ 48.36	\$ 4.42	\$ 4.88	\$ 5.34	\$ 5.80	\$ 6.27	
2"	37	\$ 82.97	\$ 4.42	\$ 4.88	\$ 5.34	\$ 5.80	\$ 6.27	
3"	81	\$ 168.14	\$ 4.42	\$ 4.88	\$ 5.34	\$ 5.80	\$ 6.27	
4"	200	\$ 335.53	\$ 4.42	\$ 4.88	\$ 5.34	\$ 5.80	\$ 6.27	
6"	328	\$ 502.87	\$ 4.42	\$ 4.88	\$ 5.34	\$ 5.80	\$ 6.27	
8"	457	\$ 670.25	\$ 4.42	\$ 4.88	\$ 5.34	\$ 5.80	\$ 6.27	
Tier Charge Per CCF								
Tier 1 - 0 - 1.33		\$ 3.96	\$ 3.96	\$ 4.26	\$ 4.43	\$ 4.48	\$ 4.48	
Tier 2 - 1.34 - 6.67		\$ 3.43	\$ 3.43	\$ 3.76	\$ 3.98	\$ 4.28	\$ 4.48	
Tier 3 - 6.67 - 100		\$ 1.95	\$ 2.81	\$ 3.23	\$ 3.72	\$ 4.09	\$ 4.48	
Tier 4 - Over 100		\$ 1.30	\$ 2.01	\$ 2.49	\$ 3.09	\$ 3.71	\$ 4.48	

Public Fire Protection by Meter Size, Charged Monthly:

5/8"	\$ 3.02
3/4"	\$ 3.02
1"	\$ 7.72
1 1/2"	\$ 17.38
2"	\$ 30.89
3"	\$ 69.50
4"	\$ 123.56
6"	\$ 278.01
8"	\$ 494.23

Public Fire Protection by Meter Size, Charged Monthly:

5/8"	\$ 3.27	\$ 3.39	\$ 3.51	\$ 3.61	\$ 3.72
3/4"	\$ 3.27	\$ 3.39	\$ 3.51	\$ 3.61	\$ 3.72
1"	\$ 8.38	\$ 8.67	\$ 8.97	\$ 9.24	\$ 9.52
1 1/2"	\$ 18.86	\$ 19.52	\$ 20.21	\$ 20.81	\$ 21.44
2"	\$ 33.52	\$ 34.70	\$ 35.91	\$ 36.99	\$ 38.10
3"	\$ 75.44	\$ 78.08	\$ 80.80	\$ 83.23	\$ 85.73
4"	\$ 134.11	\$ 138.81	\$ 143.67	\$ 147.98	\$ 152.42
6"	\$ 301.75	\$ 312.31	\$ 323.24	\$ 332.94	\$ 342.93
8"	\$ 536.44	\$ 555.22	\$ 574.65	\$ 591.89	\$ 609.65

Private Fire Protection - Annual

Per Hydrant	\$ 413.06
Per Sprinkler Head	\$ 0.43

Private Fire Protection - Annual

Per Hydrant	\$ 413.06	\$ 413.06	\$ 413.06	\$ 413.06	\$ 413.06
Per Sprinkler Head	\$ 0.43	\$ 0.43	\$ 0.43	\$ 0.43	\$ 0.44

Schedule 6 Customer Impacts

5/8" Meter, 1 CCF

93% of ALL Customers have 5/8" Meter

99% of Residential, 64% of Commercial, 29% of Industrial, 40% of Institutional

20% of 5/8" Customers Bills on Annual Basis are 1 CCF or less

	Current (FY 2022) ¹	Unit Rate Alternative (Phase I)	Unit Rate Alternative (Phase V)
Water Customer Charge	\$ 11.06	\$ 4.42	\$ 6.27
Public Fire Protection Charge	\$ 3.02	\$ 3.27	\$ 3.72
Water Volume Charge	\$ -	\$ 3.96	\$ 4.48
Total Water Bill	\$ 14.08	\$ 11.65	\$ 14.46
Change in Bill (\$)		\$ (2.43)	\$ 0.38
Change in Bill (%)		-17%	3%

5/8" Meter, 5 CCF

93% of ALL Customers have 5/8" Meter

99% of Residential, 64% of Commercial, 29% of Industrial, 40% of Institutional

75% of 5/8" Customers Bills on Annual Basis are 5 CCF or less

	Current (FY 2022) ¹	Unit Rate Alternative (Phase I)	Unit Rate Alternative (Phase V)
Water Customer Charge	\$ -	\$ 4.42	\$ 6.27
Public Fire Protection Charge	\$ 3.02	\$ 3.27	\$ 3.72
Water Volume Charge	\$ 17.85	\$ 17.85	\$ 22.38
Total Water Bill	\$ 20.87	\$ 25.54	\$ 32.37
Change in Bill (\$)		\$ 4.67	\$ 11.49
Change in Bill (%)		22%	55%

Schedule 6 Customer Impacts

1" Meter, 8 CCF

2% of ALL Customers have 1" Meter

14% of Commercial, 23% of Industrial, 11% of Institutional

57% of 1" Customers Bills on Annual Basis are 8 CCF or less

	Current (FY 2022) ¹	Unit Rate Alternative (Phase I)	Unit Rate Alternative (Phase V)
Water Customer Charge	\$ 31.63	\$ 4.42	\$ 6.27
Public Fire Protection Charge	\$ 7.72	\$ 8.38	\$ 9.52
Water Volume Charge	\$ -	\$ 27.31	\$ 35.81
Total Water Bill	\$ 39.35	\$ 40.11	\$ 51.60
Change in Bill (\$)		\$ 0.76	\$ 12.25
Change in Bill (%)		2%	31%

1" Meter, 17.5 CCF

2% of ALL Customers have 1" Meter

14% of Commercial, 23% of Industrial, 11% of Institutional

73% of 1" Customers Bills on Annual Basis are 17 CCF or less

	Current (FY 2022) ¹	Unit Rate Alternative (Phase I)	Unit Rate Alternative (Phase V)
Water Customer Charge	\$ -	\$ 4.42	\$ 6.27
Public Fire Protection Charge	\$ 7.72	\$ 8.38	\$ 9.52
Water Volume Charge	\$ 44.69	\$ 53.99	\$ 78.34
Total Water Bill	\$ 52.41	\$ 66.79	\$ 94.13
Change in Bill (\$)		\$ 14.38	\$ 41.72
Change in Bill (%)		27%	80%

Schedule 6 Customer Impacts

2" Meter, 14 CCF

2% of ALL Customers have 2" Meter

7% of Commercial, 22% of Industrial, 28% of Institutional

30% of 2" Customers Bills on Annual Basis are 14 CCF or less

	Current (FY 2022) ¹	Unit Rate Alternative (Phase I)	Unit Rate Alternative (Phase V)
Water Customer Charge	\$ 82.97	\$ 4.42	\$ 6.27
Public Fire Protection Charge	\$ 30.89	\$ 33.52	\$ 38.10
Water Volume Charge	\$ -	\$ 44.16	\$ 62.67
Total Water Bill	\$ 113.86	\$ 82.10	\$ 107.04
Change in Bill (\$)		\$ (31.76)	\$ (6.82)
Change in Bill (%)		-28%	-6%

2" Meter, 25 CCF

2% of ALL Customers have 2" Meter

7% of Commercial, 22% of Industrial, 28% of Institutional

41% of 2" Customers Bills on Annual Basis are 25 CCF or less

	Current (FY 2022) ¹	Unit Rate Alternative (Phase I)	Unit Rate Alternative (Phase V)
Water Customer Charge	\$ 82.97	\$ 4.42	\$ 6.27
Public Fire Protection Charge	\$ 30.89	\$ 33.52	\$ 38.10
Water Volume Charge	\$ -	\$ 75.05	\$ 111.92
Total Water Bill	\$ 113.86	\$ 112.99	\$ 156.28
Change in Bill (\$)		\$ (0.87)	\$ 42.42
Change in Bill (%)		-1%	37%

Schedule 6 Customer Impacts

2" Meter, 50 CCF

2% of ALL Customers have 2" Meter

7% of Commercial, 22% of Industrial, 28% of Institutional

58% of 2" Customers Bills on Annual Basis are 50 CCF or less

	Current (FY 2022) ¹	Unit Rate Alternative (Phase I)	Unit Rate Alternative (Phase V)
Water Customer Charge	\$ -	\$ 4.42	\$ 6.27
Public Fire Protection Charge	\$ 30.89	\$ 33.52	\$ 38.10
Water Volume Charge	\$ 108.06	\$ 145.25	\$ 223.83
Total Water Bill	\$ 138.95	\$ 183.19	\$ 268.20
 Change in Bill (\$)		 \$ 44.24	 \$ 129.25
Change in Bill (%)		32%	93%

2" Meter, 155 CCF

2% of ALL Customers have 2" Meter

7% of Commercial, 22% of Industrial, 28% of Institutional

84% of 2" Customers Bills on Annual Basis are 155 CCF or less

	Current (FY 2022) ¹	Unit Rate Alternative (Phase I)	Unit Rate Alternative (Phase V)
Water Customer Charge	\$ -	\$ 4.42	\$ 6.27
Public Fire Protection Charge	\$ 30.89	\$ 33.52	\$ 38.10
Water Volume Charge	\$ 277.06	\$ 396.11	\$ 694.10
Total Water Bill	\$ 307.95	\$ 434.05	\$ 738.46
 Change in Bill (\$)		 \$ 126.10	 \$ 430.51
Change in Bill (%)		41%	140%

Schedule 6 Customer Impacts

4" Meter, 118 CCF

22 Customers have 4" Meter

1 Residential, 10 Commercial, 4 Industrial, 7 Institutional

53% of 4" Customers Bills on Annual Basis are 118 CCF or less

	Current (FY 2022) ¹	Unit Rate Alternative (Phase I)	Unit Rate Alternative (Phase V)
Water Customer Charge	\$ 335.53	\$ 4.42	\$ 6.27
Public Fire Protection Charge	\$ 123.56	\$ 134.11	\$ 152.42
Water Volume Charge	\$ -	\$ 321.80	\$ 528.32
Total Water Bill	\$ 459.09	\$ 460.33	\$ 687.00
 Change in Bill (\$)		 \$ 1.24	 \$ 227.91
Change in Bill (%)		0.3%	50%

4" Meter, 1,500 CCF

22 Customers have 4" Meter

1 Residential, 10 Commercial, 4 Industrial, 7 Institutional

Only a few bills on an annual basis are higher than 1,500 CCF

	Current (FY 2022) ¹	Unit Rate Alternative (Phase I)	Unit Rate Alternative (Phase V)
Water Customer Charge	\$ -	\$ 4.42	\$ 6.27
Public Fire Protection Charge	\$ 123.56	\$ 134.11	\$ 152.42
Water Volume Charge	\$ 2,025.56	\$ 3,097.55	\$ 6,720.35
Total Water Bill	\$ 2,149.12	\$ 3,236.08	\$ 6,879.04
 Change in Bill (\$)		 \$ 1,086.96	 \$ 4,729.91
Change in Bill (%)		51%	220%

¹ Follows City of Marion current structure with minimum use associated with the customer charge for each meter size.