

Pennichuck Water Works, Inc.
Key Utility Operating Data¹
Utility Customer Cost Comparison
As of December 31, 2022
12/15/2023

PWW Joint Merger Petition
Docket No. DW 23-____
Exhibit DLW-E

	PWW	PEU	PAC
Number of Customers -	29,368	8,623	649
Number of GM Customers -	28,613	8,347	636
CCF per GM customer per year-	214.6	91.4	91.6
CCF per single family residential customer (SFRC) per year -	91.3	79.7	64.6
Industrial/Commerical/Municipal CCF support per GM Customer -	123.3	11.7	27.1
Percentage of volumetric rates paid by SFRC's =	43%	87%	70%
Total 2022 Proforma Revenues Requirement -	\$ 42,621,029	\$ 13,045,026	\$ 898,812
Total Revenue Requirement per customer -	\$ 1,451	\$ 1,513	\$ 1,385
CBFRR Requirement -	\$ 7,729,032	\$ 926,309	\$ 147,539
Debt Service Debt Revenue Requirement -	\$ 8,473,217	\$ 2,607,039	\$ 74,140
Cost of Captial adjusted Debt Service Revenue Requirement -	\$ 8,473,217	\$ 2,381,096	\$ 225,512
Debt Service Debt Requirement per customer -	\$ 289	\$ 302	\$ 114
Adjusted Debt Service Debt Requirement per customer ^{2,3} -	\$ 289	\$ 276	\$ 347
Total Operating Expense Revenue Requirement per customer (exclusive of MOEF) -	\$ 24,238,845	\$ 8,629,759	\$ 629,822
Material Operating Expense Revenue Requirement per customer (Exclusive of MOEF) -	\$ 825	\$ 1,001	\$ 970
Production Revenue Requirement (Inclusive water supply mgt fee, exclusive of MOEF) -	\$ 7,379,205	\$ 3,088,918	\$ 183,136
Water Supply Expense per GM customer -	\$ 258	\$ 370	\$ 288
Cost per customer, less water supply and adjusted for debt -	\$ 1,193	\$ 1,117	\$ 1,330

2022 TY Data -

Property Tax Expense (2022 actual expenses) -	\$ 4,001,047	\$ 1,293,748	\$ 118,309
Property Tax Expense per customer -	\$ 136	\$ 150	\$ 182
2022 CCF's sold -	6,139,578	762,730	58,269
Variable Production Expenses (purchased/produced) -	\$ 4,012,221	\$ 1,885,627	\$ 16,681
Variable Production expenses per CCF -	\$ 0.65	\$ 2.47	\$ 0.29
2022 YE outstanding Debt -	\$ 123,919,050	\$ 29,780,574	\$ 1,221,833
2022 YE Debt per customer -	\$ 4,219.53	\$ 3,453.62	\$ 1,882.64
Feet of Watermain -	2,634,088	1,127,001	49,417
Feet of Watermain per customer-	90	131	76

Notes:

- All revenues and expenses are based on stand along rate case schedules provided in Exhibits A, B and C of this filing.
- PEU 1.1 DSRR adjusted to to reflect cost of capital using PWW terms and rates vs. those of CoBank per prefiled testimony, Page x, lines x-x
- PAC's debt adjusted for the construction of a 0.8 MG tank at an estimated cost of \$ 2,000,000 funded over 30 years at 5.5% resulting in a 1.1 DSRR of \$151,372

PWW Core Rate Impact on Single Family Residential				
	DW22-032	Stand Alone TY 2022	All Rates same (Unique Fire)@ 20%	
Average Single Family Residential Usage (CCF/Month) -	5.19	5.19	5.19	5.19
5/8" monthly meter charge - \$	26.90	\$ 28.97	\$ 29.02	\$ 29.02
Volumetric Charge - \$	4.41	\$ 4.70	\$ 5.27	\$ 5.27
Monthly Bill - \$	49.79	\$ 53.36	\$ 56.38	\$ 56.38
Annual Bill - \$	597.45	\$ 640.34	\$ 676.54	\$ 676.54
Additional Monthly Bill Amount (over TY 2022 Stand alone) -			\$ 3.02	\$ 3.02
Percentage increase over stand alone bill -			5.65%	5.65%
Percentage increase over current bill -		7.18%	13.24%	13.24%

PWW Non Core Rate Impact on Single Family Residential - PEU				
	DW20-156	Stand Alone TY 2022	All Rates same (Unique Fire)@ 20%	
Average Single Family Residential Usage (CCF/Month) -	5.19	5.19	5.19	5.19
5/8" monthly meter charge - \$	22.56	\$ 28.00	\$ 29.02	\$ 29.02
Volumetric Charge - \$	9.50	\$ 11.79	\$ 6.33	\$ 6.33
Monthly Bill - \$	71.87	\$ 89.19	\$ 61.85	\$ 61.85
Annual Bill - \$	862.38	\$ 1,070.24	\$ 742.21	\$ 742.21
Additional Monthly Bill Amount (over TY 2022 Stand alone) -			\$ (27.34)	\$ (27.34)
Percentage increase over stand alone bill -			-30.65%	-30.65%

PWW Non Core Rate Impact on Single Family Residential - PAC				
	DW20-153	Stand Alone TY 2022	All Rates same (Unique Fire)@ 20%	
Average Single Family Residential Usage (CCF/Month) -	5.19	5.19	5.19	5.19
5/8" monthly meter charge - \$	25.82	\$ 26.70	\$ 29.02	\$ 29.02
Volumetric Charge - \$	6.83	\$ 7.06	\$ 6.33	\$ 6.33
Monthly Bill - \$	61.27	\$ 63.35	\$ 61.85	\$ 61.85
Annual Bill - \$	735.21	\$ 760.18	\$ 742.21	\$ 742.21
Additional Monthly Bill Amount (over TY 2022 Stand alone) -			\$ (1.50)	\$ (1.50)
Percentage increase over stand alone bill -			-2.36%	-2.36%

	Core - PWW Rates			Non Core - PEU (Excludes Litchfield&NC) Rates		
		PWW Stand Alone TY	Non Core Volumetric @		PEU Stand Alone TY	Non Core Volumetric @
	DW22-032	2022	20% greater than Core	DW20-156	TY 2019	2022
Average Single Family Residential Usage (CCF/Month) -	7.61	7.61	7.61	6.79	6.79	6.79
Fixed monthly charge based on 5/8" meter - \$	26.90	\$ 28.97	\$ 29.02	22.56	\$ 28.00	\$ 29.02
Volumetric Charge - \$	4.41	\$ 4.70	\$ 5.27	9.50	\$ 11.79	\$ 6.33
Monthly Bill - \$	60.46	\$ 64.74	\$ 69.14	87.07	\$ 108.05	\$ 71.97
Annual Bill - \$	725.52	\$ 776.84	\$ 829.64	1,044.78	\$ 1,296.60	\$ 863.68

Additional Monthly Bill Amount (over TY 2022 Stand alone) -	\$	4.28	\$	4.40	\$	20.99	\$	(36.08)		
Percentage increase over stand alone bill -		7.07%		6.80%		24.10%		-33.39%	PWW Core Recoup	PEU Recoup
Additional Monthly Bill Amount (over last approved rates) -	\$	4.28	\$	8.68	\$	20.99	\$	(15.09)	\$	104.12
Percentage increase over last approved rate -		7.07%		14.35%		24.10%		-17.33%		(181.10)

Non Core - PWW CWS Rates				Non Core - PAC Rates			
	PWW Stand Alone TY		Non Core Volumetric @	PAC Stand Alone TY		Non Core Volumetric @	
	DW22-032	2022	20% greater than Core	DW20-153	TY 2019	2022	20% greater than Core
Average Single Family Residential Usage (CCF/Month) -	9.42	9.42	9.42	5.38	5.38	5.38	
Fixed monthly charge based on 5/8" meter -	\$ 26.90	\$ 28.97	\$ 29.02	\$ 25.82	\$ 26.70	\$ 29.02	
Volumetric Charge -	\$ 4.41	\$ 4.70	\$ 6.33	\$ 6.83	\$ 7.06	\$ 6.33	
Monthly Bill -	\$ 68.44	\$ 73.24	\$ 88.61	\$ 62.57	\$ 64.69	\$ 63.05	
Annual Bill -	\$ 821.31	\$ 878.94	\$ 1,063.34	\$ 750.78	\$ 776.28	\$ 756.63	
Additional Monthly Bill Amount (over TY 2022 Stand alone) -		\$ 4.80	\$ 15.37		\$ 2.12	\$ (1.64)	
Percentage increase over stand alone bill -		7.02%	20.98%		3.40%	-2.53%	PWW NCore Recoup
Additional Monthly Bill Amount (over last approved rates) -		\$ 4.80	\$ 20.17		\$ 2.12	\$ 0.49	\$ 242.03
Percentage increase over last approved rate -		7.02%	29.47%		3.40%	0.78%	PAC Recoup 5.85

Core - Litchfield Rates			
	PEU Stand Alone TY		Non Core Volumetric @
	DW20-156	TY 2019	20% greater than Core
Average Single Family Residential Usage (CCF/Month) -	6.48	6.48	6.48
Fixed monthly charge based on 5/8" meter -	\$ 22.56	\$ 28.00	\$ 29.02
Volumetric Charge -	\$ 9.50	\$ 11.79	\$ 5.27
Monthly Bill -	\$ 84.12	\$ 104.40	\$ 63.18
Annual Bill -	\$ 1,009.44	\$ 1,252.74	\$ 758.15
Additional Monthly Bill Amount (over TY 2022 Stand alone) -		\$ 20.28	\$ (41.22)
Percentage increase over stand alone bill -		24.10%	-39.48%
Additional Monthly Bill Amount (over last approved rates) -		\$ 20.28	\$ (20.94)
Percentage increase over last approved rate -		24.10%	-24.89%

Core Litchfield Recoup (251.29)

Non Core - PEU North Country (NC) Rates			
	PEU Stand Alone TY		Non Core Volumetric @
	DW20-156	TY 2019	20% greater than Core
Average Single Family Residential Usage (CCF/Month) -	3.48	3.48	3.48
Fixed monthly charge based on 5/8" meter -	\$ 22.56	\$ 28.00	\$ 29.02
Volumetric Charge -	\$ 9.50	\$ 11.79	\$ 6.33
Monthly Bill, exclusive of NCRRS -	\$ 55.62	\$ 69.03	\$ 51.03
Ave NCCRS -	\$ 11.88	\$ 11.88	\$ -
Ave Total bill with NCCRS -	\$ 67.50	\$ 80.91	\$ 51.03
Annual Bill -	\$ 810.00	\$ 970.87	\$ 612.39
Additional Monthly Bill Amount (over TY 2022 Stand alone) -		\$ 13.41	\$ (16.47)
Percentage increase over stand alone bill -		19.86%	-24.40%
Additional Monthly Bill Amount (over last approved rates) -		\$ 13.41	\$ (16.47)
Percentage increase over last approved rate -		19.86%	-24.40%

Non Core NC Recoup (197.61)

G-M Customer Charge based on Meter Size

Meter Size	Rates Based on 2022 Test Year					
	PWW		PEU		PAC	
	DW22-032	22 TY Rates	DW20-156	22 TY Rates	DW20-153	22 TY Rates
5/8"	\$ 26.90	\$ 28.97	\$ 22.56	\$ 28.00	\$ 25.82	\$ 26.70
3/4"	\$ 39.14	\$ 41.72	\$ 44.03	\$ 54.64	\$ 36.79	\$ 38.04
1"	\$ 63.03	\$ 67.18	\$ 62.32	\$ 77.34	\$ 55.56	\$ 57.45
1" meter with private residential fire service ¹	\$ 39.26	\$ 41.85	\$ 32.27	\$ 40.05		
1 1/2"	\$ 122.88	\$ 130.97	\$ 135.68	\$ 168.38	\$ 100.27	\$ 103.68
2"	\$ 201.15	\$ 214.40	\$ 201.30	\$ 249.82	\$ 155.12	\$ 160.39
3"	\$ 368.87	\$ 393.17	\$ 465.33	\$ 577.49	\$ 288.18	\$ 297.97
4"	\$ 608.39	\$ 648.46	\$ 730.90	\$ 907.07	\$ 472.28	\$ 488.32
6"	\$ 1,207.21	\$ 1,286.72	\$ 1,461.77	\$ 1,814.10	\$ 942.05	\$ 974.04
8"	\$ 1,925.97	\$ 2,052.82	\$ 1,825.67	\$ 2,265.71	\$ 1,566.83	\$ 1,620.04
10"	\$ 2,764.31	\$ 2,946.38	\$ 1,825.67	\$ 2,265.71	\$ -	\$ -
Volumetric Rate per CCF -	\$ 4.41	\$ 4.70	\$ 9.50	\$ 11.79	\$ 6.83	\$ 7.06
Muni Fire "Inch-Ft" Charge per year -	\$ 0.18896	\$ 0.21587	\$ 0.12743	\$ 0.15814	\$ 0.21091	\$ 0.21807
Muni Fire "Hydrant" Charge per year -	\$ 27.38	\$ 31.28	\$ 19.65	\$ 24.39	\$ 100.10	\$ 103.50
1 1/2" connections	\$ 12.36	\$ 13.31	\$ 9.71	\$ 12.05	\$ 71.37	\$ 73.79
2" connections	\$ 29.42	\$ 31.68	\$ 17.25	\$ 21.41	\$ 71.37	\$ 73.79
3" connections	\$ 49.39	\$ 53.18	\$ 38.82	\$ 48.18	\$ 71.37	\$ 73.79
4" connections	\$ 117.73	\$ 126.77	\$ 69.02	\$ 85.66	\$ 71.37	\$ 73.79
6" connections	\$ 197.54	\$ 212.71	\$ 155.33	\$ 192.77	\$ 204.79	\$ 211.75
8" or larger connections	\$ 290.85	\$ 313.19	\$ 276.10	\$ 342.65	\$ 434.95	\$ 449.72
10" connection (PEU)			\$ 455.26	\$ 564.99		
12" connection (PEU)			\$ 733.22	\$ 909.95		
Private Fire Hydrant (PEU)			\$ 121.37	\$ 150.62		
PEU - Metered and Volumetric	\$ 196,503	\$ 209,446				
Hudson- Metered and Volumetric	\$ 539,434	\$ 574,963				
Anheuser Busch - Metered and Volumetric	\$ 519,095	\$ 553,285				
Tyngsborough Metered and Volumetric	\$ 372,877	\$ 397,437				
Milford Metered and Volumetric	\$ 155,420	\$ 165,657				
MVD Volumetric	\$ 129,542	\$ 138,074				
PEU - Fixed Fee	\$ 192,979	\$ 192,979				
Hudson- Fixed Fee	\$ 457,441	\$ 457,441				
Anheuser Busch - Fixed Fee	\$ 356,622	\$ 356,622				
Tyngsborough - Fixed Fee	\$ -	\$ -				
Milford - Fixed Fee	\$ 105,943	\$ 105,943				
MVD - Fixed Fee	\$ 181,718	\$ 181,718				
Based on a percentage increase of from last approved rate case with TY of Rate Case Docket No.		7.68%	24.10%	3.40%		
		2021	2019	2019		
		DW22-032	DW20-156	DW20-153		

Option 3 - PWW rate with PWW Non Core Rate, Fire Protection by Community													
	PWW			PEU			PAC			Combined Revenues @ PWW rates			
	Rate	Quantity	Revenues	Rate	Quantity	Revenues	Rate	Quantity	Revenues	COSS Rates	Quantity	Revenues	
5/8"	\$ 28.97	26,604	\$ 9,247,480	\$ 28.00	8,017	\$ 2,693,480	\$ 26.70	596	\$ 190,936	29.02	35,217	\$ 12,262,305	
3/4"	\$ 41.72	567	\$ 283,849	\$ 54.64	77	\$ 50,490	\$ 38.04	3	\$ 1,369	43.52	647	\$ 337,921	
1"	\$ 67.18	609	\$ 490,962	\$ 77.34	153	\$ 141,998	\$ 57.45	15	\$ 10,340	72.54	777	\$ 676,364	
1 1/2"	\$ 130.97	469	\$ 737,118	\$ 168.38	53	\$ 107,091	\$ 103.68	10	\$ 12,441	145.08	532	\$ 926,193	
2"	\$ 214.40	294	\$ 756,398	\$ 249.82	43	\$ 128,907	\$ 160.39	11	\$ 21,171	232.13	348	\$ 969,369	
3"	\$ 393.17	56	\$ 264,207	\$ 577.49	4	\$ 27,719	\$ 297.97	1	\$ 3,576	464.26	61	\$ 339,836	
4"	\$ 648.46	9	\$ 70,034	\$ 907.07	-	\$ -	\$ 488.32	-	\$ -	725.40	8	\$ 69,639	
6"	\$ 1,286.72	6	\$ 92,644	\$ 1,814.10	-	\$ -	\$ 974.04	-	\$ -	1,450.80	6	\$ 104,458	
8"	\$ 2,052.82	1	\$ 24,634	\$ 2,265.71	-	\$ -	\$ 1,620.04	-	\$ -	2,321.29	1	\$ 27,855	
10"	\$ 2,946.38	-	\$ -	\$ 2,265.71	-	\$ -	\$ -	-	\$ -	-	-	\$ -	
		28,615	\$ 11,967,326		8,347	\$ 3,149,684		636	\$ 239,834		37,597	\$ 15,713,940	
Volumetric Rate per CCF -	Current Rate	5 Yr Ave	Current Rate	5 Yr Ave	Current Rate	5 Yr Ave	Current Rate	5 Yr Ave	Core Volumetric Revenues				
	\$ 4.41	4,364,043	\$ 19,245,428	\$ 9.50	721,418	\$ 6,853,475	\$ 6.83	57,755	\$ 394,467	\$ 5.272	4,225,474	\$ 22,277,041	Non Core Volumetric Revenues @
								\$ 26,493,370	\$ 5.45		\$ 28,083,135	\$ 5,806,094	20% over Core rate
													-3.37%
Core - Group 1													
Muni Fire "Inch-Ft" Charge per year -	\$ 0.23247	15,005,040	\$ 3,488,218	\$ 175								\$ 3,488,393	
Muni Fire "Hydrant" Charge per year -	\$ 421.06	2,386	\$ 1,004,657									\$ 1,004,657	
			\$ 4,492,875									\$ 4,493,050	
Non Core - Group 2 - Large Fire flows													
Muni Fire "Inch-Ft" Charge per year -	\$ 0.12915	8,310,305	\$ 1,073,275	\$ 438								\$ 1,073,713	
Muni Fire "Hydrant" Charge per year -	\$ 421.06	820	\$ 345,272									\$ 345,272	
			\$ 1,418,547									\$ 1,418,985	

Non Core - Group 4 - Small Fire flows

Muni Fire "Inch-Ft" Charge per year -	\$	0.02583	713,372	\$	18,426	\$	88
Muni Fire "Hydrant" Charge per year -	\$	421.06	114	\$	48,001		
				\$	66,428		

\$	18,514
\$	48,001
\$	66,515

Pittsfield - Group 3

Muni Fire "Inch-Ft" Charge per year -	\$	0.18081	483,668	\$	87,452	\$	613
Muni Fire "Hydrant" Charge per year -	\$	421.06	68	\$	28,632		
				\$	116,084		

\$	88,065
\$	28,632
\$	116,697

\$ 6,095,248

COSS Rates (monthly)	Quantity																			
1 1/2" connections	\$	3.68	103	\$	4,550	\$	3.68	111	\$	4,904	\$	3.68	0	\$	-	\$	3.68	214	\$	9,454
2" connections	\$	7.85	84	\$	7,908	\$	7.85	86	\$	8,097	\$	7.85	0	\$	-	\$	7.85	170	\$	16,005
3" connections	\$	22.79	0	\$	-	\$	22.79	0	\$	-	\$	22.79	0	\$	-	\$	22.79	0	\$	-
4" connections	\$	48.57	130	\$	75,763	\$	48.57	43	\$	25,060	\$	48.57	1	\$	583	\$	48.57	174	\$	101,406
6" connections	\$	141.08	419	\$	709,332	\$	141.08	71	\$	120,197	\$	141.08	10	\$	16,929	\$	141.08	500	\$	846,458
8" connections	\$	336.25	282	\$	1,137,876	\$	336.25	47	\$	189,646	\$	336.25	1	\$	4,035	\$	336.25	330	\$	1,331,556
10" connection	\$	336.25	4	\$	16,140	\$	336.25	4	\$	16,140	\$	336.25	0	\$	-	\$	336.25	8	\$	32,280
12" connection	\$	336.25	10	\$	40,350	\$	336.25	6	\$	24,210	\$	336.25	0	\$	-	\$	336.25	16	\$	64,560
16" connection	\$	336.25	1	\$	4,035	\$	336.25	0	\$	-	\$	336.25	0	\$	-	\$	336.25	1	\$	4,035
			1033	\$	1,995,955			368	\$	388,254			12	\$	21,547			1,413	\$	2,405,755

PEU - Metered and Volumetric (eliminated)	Eliminated	COSS												
Anheuser Busch - Metered and Volumetric	385,466	\$	-										\$	-
Hudson - Metered and Volumetric	487,968	\$	564,464										\$	545,415
Tyngsborough Metered and Volumetric	134,734	\$	602,969										\$	582,620
Milford Metered and Volumetric	82,763	\$	416,130										\$	402,086
MVD Volumetric	121,992	\$	171,369										\$	165,586
		\$	142,832										\$	138,012
		\$	1,897,764										\$	1,833,720

-3.37%

PEU - Fixed Fee (eliminated)		\$	-										\$	-
Anheuser Busch - Fixed Fee		\$	356,622										\$	-
Hudson - Fixed Fee		\$	457,441										\$	356,622
Tyngsborough - Fixed Fee		\$	-										\$	457,441
Milford - Fixed Fee		\$	105,943										\$	-
MVD - Fixed Fee		\$	181,718										\$	105,943
		\$	1,101,724										\$	181,718
	29,659		8,715										\$	1,101,724

0.00%

Total Revenues @ Proposed Rates exclusive of Misc. Other Revenues -	\$	39,599,347	\$	10,391,413	\$	655,848	\$	55,233,521
					\$	50,646,608	\$	0

Goal seek on to equal cell O101 value by changing Cell M67 and manually adjusting cell T87

Combined Revenue Requirement (from 1604.06) -	\$	40,733,700	\$	12,978,727	\$	892,412	\$	54,604,839
					Consolidated	\$	55,233,521	

% increase to PWW Volumetric rates required to meet revenue requirement with combined rates - -3.375%

- PWW 2022 Test Year Muni Fire and Hydrants Charged adjusted up by 106.090% to reflect 11/2023 adjustment of 3% and 11/2024 adjustment of 3.0% based on annual adjustment approved in DW19-084
- Fixed Meter Charges (exclusive of 5/8" meter charge adjusted down by Litchfield average metered sales - 206,538 CCF 98.983% to reflect 11/2023 adjustment of -0.51% and 11/2024 adjustment of -0.51% based on annual adjustment approved in DW19-085