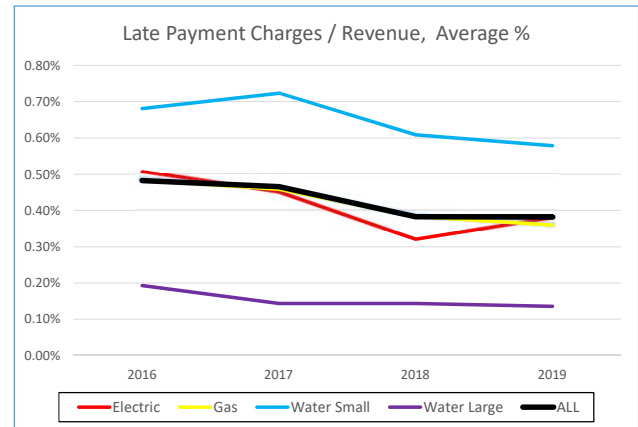
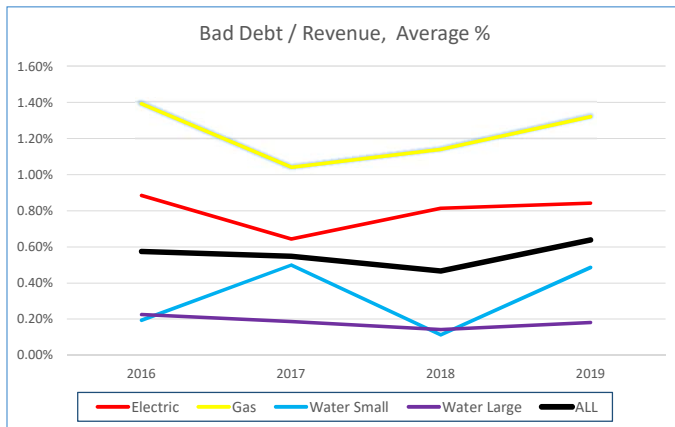


IR 20-089, Covid-19 Investigation  
Analysis of Bad Debt Expense to Revenue and Late Payment Charges to Revenue

	Type	Size	Metric	2016	2017	2018	2019
Average	Electric		Bad Debt / Revenue	0.88%	0.64%	0.81%	0.84%
	Gas		Bad Debt / Revenue	1.39%	1.04%	1.14%	1.32%
	Water	Small	Bad Debt / Revenue	0.19%	0.50%	0.11%	0.49%
	Water	Large	Bad Debt / Revenue	0.22%	0.19%	0.14%	0.18%
	ALL		Bad Debt / Revenue	0.57%	0.55%	0.47%	0.64%
Average	Electric		Late Payment Charges / Revenue	0.51%	0.45%	0.32%	0.38%
	Gas		Late Payment Charges / Revenue	0.48%	0.46%	0.38%	0.36%
	Water	Small	Late Payment Charges / Revenue	0.68%	0.72%	0.61%	0.58%
	Water	Large	Late Payment Charges / Revenue	0.19%	0.14%	0.14%	0.14%
	ALL		Late Payment Charges / Revenue	0.48%	0.47%	0.38%	0.38%
% Change from Prior Year	Electric		Bad Debt / Revenue		-27%	26%	4%
	Gas		Bad Debt / Revenue		-25%	10%	16%
	Water	Small	Bad Debt / Revenue		159%	-77%	331%
	Water	Large	Bad Debt / Revenue		-17%	-24%	28%
	ALL		Bad Debt / Revenue		-5%	-15%	37%
% Change from Prior Year	Electric		Late Payment Charges / Revenue		-11%	-29%	19%
	Gas		Late Payment Charges / Revenue		-5%	-16%	-6%
	Water	Small	Late Payment Charges / Revenue		6%	-16%	-5%
	Water	Large	Late Payment Charges / Revenue		-25%	0%	-5%
	ALL		Late Payment Charges / Revenue		-3%	-18%	0%



Comparison of Bad Debt Included in Current Rates with Actual Bad Debt

Notes	Company	Metric	Bad Debt Included in Rates		Actual Bad Debt (see note A)			
			Effective Date	Amount Included	2016	2017	2018	2019
(B)	Abenaki	Bad Debt	12/28/2018	(C)				0
	Aquarion	Bad Debt	7/1/2012	24,000	5,072	6,996	6,996	10,875
	Eversource	Bad Debt	7/1/2019	2,528,567				
(B)	Hampstead	Bad Debt	7/1/2019	(C)				
	Liberty - Energy North	Bad Debt	11/1/2018	1,505,283				1,680,771
	Liberty - Granite State	Bad Debt	7/1/2020	178,526				
(B)	Lakes Region Water Company	Bad Debt	8/12/2019	9,000				
	Northern Utilities	Bad Debt	5/1/2018	248,010				280,546
(D)	Pennichuck Water Works	Bad Debt	11/1/2020	35,377				
	Pennichuck East Utility	Bad Debt	2/24/2019	30,044				
	Pittsfield Aqueduct Company	Bad Debt	7/22/2014	7,887	2,638	6,864	2,082	4,097
	Unitil	Bad Debt	7/1/2016	526,252		339,394	721,658	584,561

- (A) Actual bad debt is shown only for years subsequent to effective date of current rates and, also, only if bad debt included in current rates was provided.
- (B) Company has multiple tariffs, each covering one or more divisions. "Effective date" is for the tariff with the most recent effective date.
- (C) This information is missing from the company's response to Staff 1-1
- (D) Effective date is an estimate; PWW's permanent rates in DW 19-084 have not yet become effective.

Below is the data, submitted by each utility in response to Staff data request Set 1 in IR 20-089, used for the analysis above..

Notes	Company	Type	Size	Metric	2016	2017	2018	2019
	Abenaki	Water	Small	Bad Debt	105	470	135	0
	Abenaki	Water	Small	Late Payment Charges	0	0	0	0
	Abenaki	Water	Small	Applicable Revenue	403,463	640,897	633,833	705,735
	Abenaki	Water	Small	Bad Debt / Revenue	0.026%	0.073%	0.021%	0.000%
	Abenaki	Water	Small	Late Payment Charges / Revenue	0.000%	0.000%	0.000%	0.000%
	Aquarion	Water	Large	Bad Debt	5,072	6,996	6,996	10,875
	Aquarion	Water	Large	Late Payment Charges	43,155	32,552	32,274	29,467
	Aquarion	Water	Large	Applicable Revenue	7,461,833	7,544,652	7,497,755	7,226,513
	Aquarion	Water	Large	Bad Debt / Revenue	0.068%	0.093%	0.093%	0.150%
	Aquarion	Water	Large	Late Payment Charges / Revenue	0.578%	0.431%	0.430%	0.408%
	Eversource	Electric		Bad Debt	2,550,869	2,346,347	2,234,202	2,354,833
(1)	Eversource	Electric		Late Payment Charges	2,289,536	2,627,082	959,162	1,902,287
(2)	Eversource	Electric		Applicable Revenue	348,483,631	346,953,015	349,839,116	355,934,505
	Eversource	Electric		Bad Debt / Revenue	0.732%	0.676%	0.639%	0.662%
	Eversource	Electric		Late Payment Charges / Revenue	0.657%	0.757%	0.274%	0.534%
	Hampstead	Water	Small	Bad Debt	8,268	0	0	0
	Hampstead	Water	Small	Late Payment Charges	39,580	41,621	38,620	38,074
	Hampstead	Water	Small	Applicable Revenue	1,721,164	1,691,632	1,937,425	2,022,963
	Hampstead	Water	Small	Bad Debt / Revenue	0.480%	0.000%	0.000%	0.000%
	Hampstead	Water	Small	Late Payment Charges / Revenue	2.300%	2.460%	1.993%	1.882%
(3)	Liberty - Energy North	Gas		Bad Debt	1,505,283	1,082,081	1,141,159	1,680,771
	Liberty - Energy North	Gas		Late Payment Charges	432,381	450,521	427,218	457,748
	Liberty - Energy North	Gas		Applicable Revenue	66,736,663	71,147,958	81,959,489	86,463,777
	Liberty - Energy North	Gas		Bad Debt / Revenue	2.256%	1.521%	1.392%	1.944%
	Liberty - Energy North	Gas		Late Payment Charges / Revenue	0.648%	0.633%	0.521%	0.529%
	Liberty - Granite State	Electric		Bad Debt	399,729	251,491	244,477	346,546
	Liberty - Granite State	Electric		Late Payment Charges	40,439	49,924	47,828	56,029
	Liberty - Granite State	Electric		Applicable Revenue	34,531,648	37,810,725	40,250,762	39,653,001
	Liberty - Granite State	Electric		Bad Debt / Revenue	1.158%	0.665%	0.607%	0.874%
	Liberty - Granite State	Electric		Late Payment Charges / Revenue	0.117%	0.132%	0.119%	0.141%
	Lakes Region Water Company	Water	Small	Bad Debt	-938	15,097	2,544	20,854
	Lakes Region Water Company	Water	Small	Late Payment Charges	5,783	6,210	6,698	6,365
	Lakes Region Water Company	Water	Small	Applicable Revenue	1,361,737	1,430,577	1,522,598	1,473,417
	Lakes Region Water Company	Water	Small	Bad Debt / Revenue	-0.069%	1.055%	0.167%	1.415%
	Lakes Region Water Company	Water	Small	Late Payment Charges / Revenue	0.425%	0.434%	0.440%	0.432%
	Northern Utilities	Gas		Bad Debt	173,011	191,961	341,047	280,546
	Northern Utilities	Gas		Late Payment Charges	104,863	97,464	94,695	76,773
	Northern Utilities	Gas		Applicable Revenue	32,814,080	34,251,433	38,449,788	40,408,217
	Northern Utilities	Gas		Bad Debt / Revenue	0.527%	0.560%	0.887%	0.694%
	Northern Utilities	Gas		Late Payment Charges / Revenue	0.320%	0.285%	0.246%	0.190%
	Pennichuck Water Works	Water	Large	Bad Debt	62,324	41,763	48,493	35,377
	Pennichuck Water Works	Water	Large	Late Payment Charges	0	0	0	0
	Pennichuck Water Works	Water	Large	Applicable Revenue	30,922,560	29,584,048	32,390,671	32,280,395
	Pennichuck Water Works	Water	Large	Bad Debt / Revenue	0.202%	0.141%	0.150%	0.110%
	Pennichuck Water Works	Water	Large	Late Payment Charges / Revenue	0.000%	0.000%	0.000%	0.000%
	Pennichuck East Utility	Water	Large	Bad Debt	30,044	23,351	15,892	25,101
	Pennichuck East Utility	Water	Large	Late Payment Charges	0	0	0	0
	Pennichuck East Utility	Water	Large	Applicable Revenue	7,410,951	7,197,307	8,724,455	8,819,088
	Pennichuck East Utility	Water	Large	Bad Debt / Revenue	0.405%	0.324%	0.182%	0.285%
	Pennichuck East Utility	Water	Large	Late Payment Charges / Revenue	0.000%	0.000%	0.000%	0.000%
	Pittsfield Aqueduct Company	Water	Small	Bad Debt	2,638	6,864	2,082	4,097
	Pittsfield Aqueduct Company	Water	Small	Late Payment Charges	0	0	0	0
	Pittsfield Aqueduct Company	Water	Small	Applicable Revenue	788,926	792,092	791,559	774,537
	Pittsfield Aqueduct Company	Water	Small	Bad Debt / Revenue	0.334%	0.867%	0.263%	0.529%
	Pittsfield Aqueduct Company	Water	Small	Late Payment Charges / Revenue	0.000%	0.000%	0.000%	0.000%
	Unitil	Electric		Bad Debt	409,505	339,394	721,658	584,561
	Unitil	Electric		Late Payment Charges	397,636	264,291	343,959	275,537
	Unitil	Electric		Applicable Revenue	53,501,664	57,499,226	60,442,266	58,955,650
	Unitil	Electric		Bad Debt / Revenue	0.765%	0.590%	1.194%	0.992%
	Unitil	Electric		Late Payment Charges / Revenue	0.743%	0.460%	0.569%	0.467%

## Notes:

- (1) Eversource Commission suspension reduced LPC from Mar 2018 to Feb 2019.  
(2) Eversource Revenue used for calculation listed as 'Distribution' in Eversource schedule, excludes tracking mechanisms (ES, SCRM, TCAM, and SBC)  
(3) Liberty - Energy North Bad debt related to distribution service only. Excluded data provided for commodity-related bad debt.