

Public Service Company of New Hampshire d/b/a Eversource Energy
Docket No. DE 23-091

Date Request Received: February 15, 2024
Data Request No. RR-006

Date of Response: February 20, 2024
Page 1 of 2

Request from: New Hampshire Public Utilities Commission

Witness: Littlehale, Parker

Request:

Eversource is requested to provide a complete accounting of the derivation of the (approximately) \$71 million Cumulative Reduction Factor (CRF) balance presented by the Company in this proceeding, beginning with the first overmarket dollar (since the commencement of plant operation). We note that the current total overmarket amount is approximately \$171 million. Use Jan 31, 2024 as the end date.

Response:

Please see Confidential Attachment RR-006 for the detailed information requested regarding the derivation of the Cumulative Reduction Factor (CRF) since initial operation of the Burgess plant. This is in the same format as provided to Burgess at the end of each PPA operating year.

As noted in the response to RR-005, the Excess Cumulative Reduction (ECR) (The ECR is a portion of the CRF in excess of \$100 million) captures the difference between the energy payments to Burgess under the PPA, which is the generation produced by the plant valued at the PPA contract rate, versus the value of that generation delivered to the ISO New England wholesale power market.

In a simplified example, if the Burgess facility generated 40,000 MWh during a month and the PPA contract rate was \$85/MWh while the wholesale power price was \$50/MWh:

- **Energy payments to Burgess at PPA rate:** $40,000 \text{ MWh} \times \$85/\text{MWh} = \$3.4 \text{ million.}$
- **Value of Burgess generation delivered to wholesale power market:** $40,000 \text{ MWh} \times \$50/\text{MWh} = \$2 \text{ million.}$
- **Monthly change in ECR:** $\$3.4 \text{ million} - \$2 \text{ million} = \$1.4 \text{ million added to the ECR.}$

Conversely, if the Burgess facility generated 40,000 MWh during a month and the PPA contract rate was \$85/MWh while the wholesale power price was \$125/MWh:

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- **Energy payments to Burgess at PPA rate:** : $40,000 \text{ MWh} \times \$85/\text{MWh} = \$3.4$ million.
- **Value of Burgess generation delivered to wholesale power market:** $40,000 \text{ MWh} \times \$125/\text{MWh} = \$5$ million.
- **Monthly change in ECR:** $\$3.4 \text{ million} - \$5 \text{ million} = \$1.6 \text{ million}$ subtracted from the ECR.

Replicating that calculation over the term of the PPA has led to an ECR amount over the \$100 million cap for the period ending December 31, 2023 in the total amount of \$70.9 million, as filed with the Commission on January 16, 2024 in Docket No. DE 19-142 (and see the update letter dated February 2, 2024 filed in that docket).

It should be noted that the ECR calculations described above continue to apply even while netting against payments to the Burgess plant are implemented with respect to periods after November 30, 2023. As a result, the ECR amount is not a fixed number and will continue to change due to variable Burgess plant output and changing wholesale power market prices.

REDACTED

Docket No. DE 23-091

Dated: 02/20/24

Attachment RR-006

This thru 11/30/23

Started 12/1/23

One-Twelfth

Payment Rate \$/MWh	Year	Month	um of Generation - MWh/l/erage of Adj. Base Price - \$/MVSum of Payment for Power - \$um of MWh * DAM \$/MWh - Sum of Hourly Factor - \$	Cumulative Reduction \$	Wted Ave. DA LMP \$/MWh	Cumulative Reduction Reduced by Excess MWh Adj. \$	Cumulative Reduction Reduced by Excess Cum. Red. \$	Execss Cumulative Reduction (Rounded) \$	Execss Cumulative Reduction (Rounded) \$
	2013	11	0.000	0.00	0.00	0	0.00		
		12	3,876.168	423,536.07	152,979.54	152,980	109.27		
	2013 Total		3,876.168	423,536.07	152,979.54		109.27		
	2014	1	13,206.786	2,496,479.52	1,573,459.34	1,726,439	189.03		
		2	4,818.930	555,083.29	218,289.04	1,944,728	115.19		
		3	16,472.814	1,333,444.51	182,162.15	2,126,890	80.95		
		4	18,957.528	797,610.92	(525,244.08)	1,601,646	42.07		
		5	12,082.854	409,340.06	(433,800.66)	1,167,845	33.88		
		6	21,683.184	702,073.16	(810,977.93)	356,867	32.38		
		7	30,069.804	933,498.60	(1,166,693.25)	(809,826)	31.04		
		8	24,135.600	717,459.26	(968,264.74)	(1,778,091)	29.73		
		9	24,411.348	748,769.18	(956,214.13)	(2,734,305)	30.67		
		10	43,564.074	1,234,112.46	(1,807,966.83)	(4,542,272)	28.33		
		11	44,031.338	1,859,025.70	(1,215,682.63)	(5,757,954)	42.22		
		12	33,377.298	1,196,752.91	(1,133,983.81)	(6,891,938)	35.86		
	2014 Total		286,811.558	12,983,649.58	(7,044,917.54)		45.27		
	2015	1	21,038.256	1,117,913.61	(349,904.48)	(7,241,842)	53.14		
		2	27,680.106	3,128,221.54	1,196,980.54	(6,044,862)	113.01		
		3	23,129.454	1,340,970.59	(272,771.42)	(6,317,633)	57.98		
		4	42,601.200	872,687.61	(2,149,058.11)	(8,466,691)	20.49		
		5	46,010.370	937,807.37	(2,325,754.18)	(10,792,446)	20.38		
		6	26,306.256	409,077.05	(1,456,852.00)	(12,249,298)	15.55		
		7	45,825.912	1,013,074.43	(2,329,559.24)	(14,578,857)	22.11		
		8	39,193.020	1,042,559.38	(1,816,257.89)	(16,395,115)	26.60		
		9	41,275.734	1,211,374.35	(1,799,360.24)	(18,194,475)	29.35		
		10	24,081.786	728,878.30	(1,026,924.71)	(19,221,400)	30.27		
		11	34,075.340	929,868.54	(1,554,564.50)	(20,775,964)	27.29		
		12	49,805.724	984,115.06	(2,647,220.27)	(23,423,185)	19.76		
	2015 Total		421,023.158	13,716,547.82	(16,531,246.50)		32.58		
	2016	1	50,195.880	1,721,299.36	(1,934,968.54)	(25,358,153)	34.29		
		2	36,174.546	810,935.52	(1,824,018.41)	(27,182,171)	22.42		
		3	46,846.656	761,590.11	(2,650,720.31)	(29,832,892)	16.26		
		4	25,469.880	503,483.38	(1,355,486.75)	(31,188,379)	19.77		
		5	47,772.960	851,185.63	(2,635,619.40)	(33,823,998)	17.82		
		6	43,657.710	896,282.33	(2,290,162.95)	(36,114,161)	20.53		
		7	45,037.200	1,263,653.14	(1,859,046.16)	(37,973,207)	28.06		
		8	50,286.954	1,654,751.04	(1,831,945.20)	(39,805,152)	32.91		
		9	48,448.716	1,244,252.94	(2,114,987.24)	(41,920,139)	25.68		
		10	34,748.100	690,465.20	(1,719,176.54)	(43,639,316)	19.87		
		11	48,735.368	1,047,840.67	(2,331,762.16)	(45,971,078)	21.50		
		12	47,082.222	2,237,135.05	(1,027,828.71)	(46,998,907)	47.52	(45,699,927.62)	
	2016 Total		524,456.192	13,682,874.37	(23,575,722.38)		26.09		

REDACTED

Docket No. DE 23-091

Dated: 02/20/24

Attachment RR-006

This thru 11/30/23

Started 12/1/23

One-Twelfth

Payment Rate \$/MWh	Year	Month	Sum of Generation - MWh/Average of Adj. Base Price - \$/MWh	Sum of Payment for Power - \$	Sum of MWh * DAM \$/MWh - Sum of Hourly Factor - \$	Cumulative Reduction \$	Wted Ave. DA LMP \$/MWh	Reduced by Excess MWh Adj. \$	Reduced by Excess Cum. Red. \$	Reduction (Rounded) \$	Reduction (Rounded) \$	
	2017	1	45,021.636		1,488,362.94	(1,524,034.72)	(48,522,942)	33.06	(47,223,962.35)			
		2	36,758.148		1,001,056.68	(1,458,431.00)	(49,981,373)	27.23	(48,682,393.35)			
		3	48,835.008		1,277,689.96	(1,989,860.43)	(51,971,233)	26.16	(50,672,253.77)			
		4	33,239.766		514,225.83	(1,673,748.53)	(53,644,982)	15.47	(52,346,002.30)			
		5	50,194.968		314,873.60	(2,989,159.98)	(56,634,142)	6.27	(55,335,162.28)			
		6	48,268.584		564,834.97	(2,612,396.30)	(59,246,538)	11.70	(57,947,558.58)			
		7	41,015.700		1,002,034.65	(1,703,483.97)	(60,950,022)	24.43	(59,651,042.55)			
		8	38,818.326		745,997.76	(1,814,575.48)	(62,764,597)	19.22	(61,465,618.03)			
		9	38,999.472		396,918.49	(2,175,603.68)	(64,940,201)	10.18	(63,641,221.70)			
		10	25,278.828		439,511.40	(1,191,352.19)	(66,131,553)	17.39	(64,832,573.89)			
		11	35,879.100		1,012,375.58	(1,302,364.56)	(67,433,918)	28.22	(66,134,938.45)			
		12	50,417.172		3,183,249.55	(69,414.30)	(67,503,332)	63.14	(66,204,352.75)			
	2017 Total		492,726.708		11,941,131.41	(20,504,425.13)		24.23				
	2018	1	50,265.168		4,819,345.70	1,580,961.98	(65,922,370)	95.88	(64,623,390.77)			
		2	44,330.058		1,450,631.01	(1,405,377.31)	(67,327,747)	32.72	(66,028,768.08)			
		3	42,169.398		1,354,662.52	(1,362,143.11)	(68,689,890)	32.12	(67,390,911.19)			
		4	29,716.482		892,679.71	(1,219,092.37)	(69,908,983)	30.04	(68,610,003.55)			
		5	40,651.548		498,338.22	(2,390,523.39)	(72,299,506)	12.26	(71,000,526.94)			
		6	46,573.452		1,143,350.76	(2,166,345.04)	(74,465,851)	24.55	(73,166,871.98)			
		7	50,479.500		1,558,830.09	(2,142,326.85)	(76,608,178)	30.88	(75,309,198.83)			
		8	48,562.506		1,666,654.63	(1,893,948.31)	(78,502,126)	34.32	(77,203,147.14)			
		9	40,083.120		896,881.00	(2,042,013.36)	(80,544,140)	22.38	(79,245,160.50)			
		10	28,243.098		979,297.54	(1,034,435.35)	(81,578,575)	34.67	(80,279,595.85)			
		11	32,278.758		1,629,523.77	(671,951.68)	(82,250,527)	50.48	(80,840,658.75)			
		12	45,898.350		1,892,162.48	(1,380,573.46)	(83,631,100)	41.23	(82,221,232.21)			
	2018 Total		499,251.438		18,782,357.42	(16,127,768.24)		37.62				
	2019	1	50,201.418		2,376,751.35	(1,209,236.34)	(84,840,337)	47.34	(83,430,468.55)			
		2	45,481.548		1,315,712.70	(1,933,125.23)	(86,773,462)	28.93	(85,363,593.79)			
		3	43,373.592		1,483,745.27	(1,614,517.16)	(88,387,979)	34.21	(86,978,110.94)			
		4	36,885.744		683,924.85	(2,250,114.77)	(90,638,094)	18.54	(89,228,225.72)			
		5	50,380.464		995,779.91	(3,011,683.71)	(93,649,777)	19.77	(92,239,909.43)			
		6	48,831.858		969,002.01	(2,915,279.31)	(96,565,057)	19.84	(95,155,188.74)			
		7	46,015.920		1,267,579.43	(2,238,097.42)	(98,803,154)	27.55	(97,393,286.16)			
		8	43,636.626		1,051,780.48	(2,272,632.23)	(101,075,786)	24.10	(99,665,918.39)			
		9	45,053.136		739,978.08	(2,692,350.04)	(103,768,136)	16.42	(102,358,268.43)			
		10	32,303.514		361,552.57	(2,104,626.90)	(105,872,763)	11.19	(104,462,895.34)			
		11	46,939.948		1,069,876.16	(2,513,707.23)	(108,386,471)	22.79	(105,266,677.76)	(100,000,000.00)	(5,266,677.76)	(438,889.81)
		12	50,053.230		1,661,908.66	(2,159,355.13)	(110,545,826)	33.20	(107,426,032.89)	(102,159,355.13)		
	2019 Total		539,156.998		13,977,591.46	(26,914,725.48)		25.92				
	2020	1	47,745.672		1,108,077.58	(2,651,607.62)	(113,197,433)	23.21	(110,077,640.51)	(104,810,962.75)		
		2	38,103.348		768,155.74	(2,232,254.30)	(115,429,688)	20.16	(112,309,894.80)	(107,043,217.04)		
		3	46,353.468		625,061.08	(3,024,996.40)	(118,454,684)	13.48	(115,334,891.21)	(110,068,213.45)		
		4	35,462.664		413,768.20	(2,365,086.15)	(120,819,770)	11.67	(117,699,977.36)	(112,433,299.60)		
		5	47,890.116		499,247.27	(3,253,422.22)	(124,073,192)	10.42	(120,953,399.58)	(115,686,721.82)		
		6	48,566.988		913,342.91	(2,892,366.27)	(126,965,559)	18.81	(123,845,765.85)	(118,579,088.09)		
		7	43,722.384		1,024,519.76	(2,275,645.78)	(129,241,204)	23.43	(126,121,411.63)	(120,854,733.87)		
		8	50,344.860		1,144,706.80	(2,655,323.23)	(131,896,528)	22.74	(128,776,734.87)	(123,510,057.11)		
		9	38,463.006		388,923.71	(2,514,263.99)	(134,410,792)	10.11	(131,290,998.85)	(126,024,321.09)		
		10	27,595.812		665,568.08	(1,310,098.89)	(135,720,891)	24.12	(132,601,097.74)	(127,334,419.98)		
		11	44,421.142		1,022,369.83	(2,157,872.99)	(137,878,764)	23.02	(133,694,480.84)	(129,492,292.97)	(33,694,480.84)	(2,807,873.40)
		12	49,983.516		1,852,199.69	(1,726,270.17)	(139,605,034)	37.06	(135,420,751.02)	(131,218,563.15)		
	2020 Total		518,652.976		10,425,940.64	(29,059,208.02)		20.10				
2021	1	50,236.830		1,955,984.00	(1,692,666.73)	(141,297,700)	38.94	(137,113,417.74)	(132,911,229.87)			

REDACTED

Docket No. DE 23-091
Dated: 02/20/24
Attachment RR-006

							This thru 11/30/23	Started 12/1/23		
							Cumulative Reduction	Cumulative Reduction	Execss Cumulative Reduction	One-Twelfth Execss Cumulative Reduction
Payment Rate							Reduced by Excess MWh Adj.	Reduced by Excess Cum. Red.	(Rounded)	(Rounded)
<u>\$/MWh</u>	Year	Month	um of Generation - MWh/l/erage of Adj. Base Price - \$/MVSum of Payment for Power - \$um of MWh * DAM \$/MWh - Sum of Hourly Factor - \$				<u>\$/MWh</u>	<u>\$/MWh</u>	<u>\$/MWh</u>	<u>\$/MWh</u>
	2021	2	45,368.694		3,167,456.84	(127,626.04)	(141,425,327)	69.82	(137,241,043.78)	(133,038,855.91)
		3	46,670.400		1,494,886.61	(1,894,737.87)	(143,320,064)	32.03	(139,135,781.65)	(134,933,593.78)
		4	36,203.046		805,375.31	(1,761,891.29)	(145,081,956)	22.25	(140,897,672.95)	(136,695,485.08)
		5	49,701.564		1,129,790.91	(2,394,696.09)	(147,476,652)	22.73	(143,292,369.04)	(139,090,181.17)
		6	47,173.050		1,732,473.40	(1,612,709.10)	(149,089,361)	36.73	(144,905,078.14)	(140,702,890.27)
		7	50,412.738		1,833,439.27	(1,767,391.37)	(150,856,752)	36.37	(146,672,469.51)	(142,470,281.64)
		8	49,485.528		2,381,145.65	(1,153,457.16)	(152,010,209)	48.12	(147,825,926.67)	(143,623,738.80)
		9	48,730.482		2,285,577.48	(1,195,094.66)	(153,205,304)	46.90	(149,021,021.33)	(144,818,833.46)
		10	25,335.582		625,228.59	(1,184,365.36)	(154,389,669)	24.68	(150,205,386.69)	(146,003,198.82)
		11	43,442.258		1,611,273.82	(1,491,589.45)	(155,881,259)	37.09	(150,279,192.65)	(147,494,788.27)
		12	47,821.818		2,977,150.46	(438,522.89)	(156,319,782)	62.26	(150,717,715.54)	(147,933,311.16)
	2021 Total		540,581.990		21,999,782.33	(16,714,748.01)	40.70			

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Payment Rate \$/MWh	Year	Month	um of Generation - MWh/l	erage of Adj. Base Price - \$/MV	Sum of Payment for Power - \$um of MWh * DAM \$/MWh - Sum of Hourly Factor - \$	Cumulative Reduction \$	Wted Ave. DA LMP \$/MWh	Cumulative Reduced by Excess MWh Adj. \$	Cumulative Reduced by Excess Cum. Red. \$	Execss Cumulative Reduction (Rounded) \$	Execss Cumulative Reduction (Rounded) \$
	2022	1	39,866.532		5,781,169.51	2,892,360.87	(153,427,421)	145.01	(147,825,354.67)	(145,040,950.29)	
		2	41,768.892		4,604,271.69	1,577,614.24	(151,849,807)	110.23	(146,247,740.44)	(143,463,336.06)	
		3	49,659.504		2,776,085.98	(822,341.00)	(152,672,148)	55.90	(147,070,081.44)	(144,285,677.06)	
		4	32,962.548		1,498,382.70	(1,076,387.85)	(153,748,536)	45.46	(148,146,469.29)	(145,362,064.91)	
		5	50,322.426		3,577,911.16	(352,874.18)	(154,101,410)	71.10	(148,499,343.47)	(145,714,939.09)	
		6	48,797.034		3,237,947.49	(573,686.43)	(154,675,096)	66.36	(149,073,029.90)	(146,288,625.52)	
		7	50,030.538		4,409,626.75	(61,002.06)	(154,736,098)	88.14	(149,134,031.97)	(146,349,627.59)	
		8	47,101.302		4,665,105.09	456,226.95	(154,279,871)	99.04	(148,677,805.02)	(145,893,400.64)	
		9	47,198.820		2,997,076.22	(1,220,515.94)	(155,500,387)	63.50	(149,898,320.96)	(147,113,916.58)	
		10	33,753.804		1,650,383.81	(1,340,844.54)	(156,841,232)	48.89	(151,239,165.50)	(148,454,761.12)	
		11	48,881.502		2,816,848.99	(1,514,980.83)	(158,356,213)	57.63	(152,578,631.46)	(149,969,741.96)	(52,578,631.46)
		12	50,305.002		5,466,921.47	1,008,942.49	(157,347,270)	108.68	(151,569,688.96)	(148,960,799.46)	(4,381,552.62)
	2022 Total		540,647.904		43,481,730.85	(1,027,488.30)	80.43				
	2023	1	50,227.290		5,460,523.20	1,094,716.92	(156,252,553)	108.72	(150,474,972.04)	(147,866,082.54)	
		2	45,255.288		3,026,527.72	(907,107.16)	(157,159,660)	66.88	(151,382,079.20)	(148,773,189.70)	
		3	50,142.900		1,696,145.55	(2,662,325.46)	(159,821,986)	33.83	(154,044,404.67)	(151,435,515.17)	
		4	36,670.038		971,896.27	(2,207,872.73)	(162,029,859)	26.50	(156,252,277.40)	(153,643,387.90)	
		5	41,106.102		969,570.51	(2,594,862.91)	(164,624,721)	23.59	(158,847,140.31)	(156,238,250.81)	
		6	41,066.940		1,361,763.25	(2,199,274.32)	(166,823,996)	33.16	(161,046,414.63)	(158,437,525.13)	
		7	50,454.366		2,050,259.35	(2,343,054.57)	(169,167,050)	40.64	(163,389,469.20)	(160,780,579.70)	
		8	46,433.976		1,183,217.40	(2,860,021.06)	(172,027,071)	25.48	(166,249,490.26)	(163,640,600.76)	
		9	35,777.064		915,299.96	(2,199,987.89)	(174,227,059)	25.58	(168,449,478.15)	(165,840,588.65)	
		10	35,451.534		837,809.43	(2,145,933.48)	(176,372,993)	23.63	(170,595,411.63)	(167,986,522.13)	
		11					(177,961,741)	37.47	(171,542,675.07)	(100,000,000.00)	(71,542,675.07)
		12						28.88	(167,216,106.31)	(101,635,320.83)	5,961,889.59
	2023 Total		496,190.436		20,602,189.05	(22,249,792.26)					
	2024	1						67.28	(167,863,526.28)	(102,282,740.80)	3,279,375.93
	2024 Total										
	Grand Total		4,900,666.534								