



Public Service of New Hampshire

May 14, 1990

Mr. Tom Tarpey, President
Essex Hydro Associates
114 State Street 5th Floor
Boston, MA 02109

Subject: Penacook Lower (SESD #055)
Front-End Loading Computation

Dear Tom:

Enclosed as you requested are the front-end loading computations for the Penacook Lower Hydro Project based on an annual interest rate of 17.61%. As we discussed earlier, after you have a chance to review the information, we should get together with Bob Winship to work out the changes, including any front-end loading buyout, that may be necessary for both 9 cent contracts.

Currently PSNH is in the midst of a transition period due to the pending merger-acquisition by Northeast Utilities, and the policies and responsibilities of the combined companies are yet to be clearly defined. This situation will probably effect how quickly we can make any contract changes for your project.

If you have any questions regarding this information, please feel free to contact me at extension 2314.

Sincerely,

A handwritten signature in dark ink, appearing to read "S. B. Wicker, Jr.", is written over the typed name.

S. B. Wicker, Jr.
Manager
Supplemental Energy Sources

GSS/pjb

SMA: 90/05/05

PRELIMINARY
ISSUE DATE 5/14/90

ANNUAL INTEREST: 17.6100
MONTHLY INTEREST: 1.3609

[illegible]

85/10/31	4000	0	0	8.00	0.00	1382500	110600.00	27650.00	780489.16	10621.49	818760.95	5.11	36.00	70585.06	67664.94	47.35
85/11/30	4000	0	0	8.00	0.00	2219000	177520.00	43480.00	818760.95	11142.32	874283.27	5.89	36.00	130707.81	91192.19	75.99
85/12/31	4000	0	0	8.00	0.00	2271500	181750.00	45430.00	874283.27	11897.91	931611.18	5.71	36.00	136711.89	63438.11	77.79
86/01/31	4000	0	0	8.00	0.00	1536500	122920.00	30730.00	931611.18	12678.07	975019.25	5.28	36.00	88859.48	64119.52	52.62
86/02/28	4000	0	0	8.00	0.00	2331000	186480.00	46620.00	975019.25	13268.80	1034908.05	4.68	36.00	108995.52	124104.48	79.83
86/03/31	4000	0	0	8.00	0.00	2401000	192080.00	48020.00	1034908.05	14083.81	1097011.86	3.99	36.00	95801.46	144298.54	82.23
86/04/30	4000	0	0	8.00	0.00	2775500	227040.00	55510.00	1097011.86	14928.97	1167450.83	4.16	36.00	115476.27	162973.73	95.05
86/05/31	4000	0	0	8.00	0.00	1382500	110600.00	27650.00	1167450.83	15887.56	1210988.40	4.76	36.00	65831.95	72418.07	47.35
86/06/30	4000	0	0	8.00	0.00	2089500	167160.00	41790.00	1210988.40	16480.05	1269258.45	3.28	36.00	86631.61	140318.39	71.56
86/07/31	4000	0	0	8.00	0.00	1221500	97720.00	24430.00	1269258.45	17273.03	1310961.48	3.18	36.00	38901.35	83248.65	41.83
86/08/31	4000	0	0	8.00	0.00	2040500	163240.00	40810.00	1310961.48	17840.56	1369612.04	3.04	36.00	62063.95	141986.05	69.88
86/09/30	4000	0	0	8.00	0.00	393500	31640.00	7910.00	1369612.04	18638.72	1396160.76	5.77	36.00	22817.38	16732.62	13.54
86/10/31	4000	0	0	8.00	0.00	822500	68800.00	16450.00	1396160.76	19000.01	1431610.77	2.72	36.00	22356.60	59893.40	28.17
86/11/30	4000	0	0	8.00	0.00	1515000	121200.00	30350.00	1431610.77	19482.44	1481443.21	2.99	36.00	45320.20	106229.80	51.88
86/12/31	4000	0	0	8.00	0.00	3430000	274400.00	68600.00	1481443.21	20160.60	1570203.82	3.43	36.00	117338.21	225461.79	117.47
87/01/31	4000	0	0	8.00	0.00	1799000	143920.00	35980.00	1570203.82	21368.52	1627552.34	3.83	36.00	69853.46	110046.54	61.61
87/02/28	4000	0	0	8.00	0.00	1074500	85960.00	21490.00	1627552.34	22148.97	1671191.30	4.59	36.00	49307.14	58142.86	36.80
87/03/31	4000	0	0	8.00	0.00	1998500	159850.00	39970.00	1671191.30	22742.84	1733904.14	3.56	36.00	71224.39	128625.61	68.44
87/04/30	4000	0	0	8.00	0.00	2800000	224000.00	56000.00	1733904.14	23596.28	1813500.42	4.07	36.00	113870.19	166129.81	95.89
87/05/31	4000	0	0	8.00	0.00	2166500	173370.00	43330.00	1813500.42	24679.49	1881509.91	3.99	47.00	86340.39	130309.61	74.20
87/06/30	4000	0	0	8.00	0.00	1361500	108920.00	27230.00	1881509.91	25605.01	1934344.92	4.83	47.00	85796.63	70353.37	46.63
87/07/31	4000	0	0	8.00	0.00	1617000	129360.00	32340.00	1934344.92	26324.03	1993008.95	4.07	47.00	45813.23	95886.77	55.38
87/08/31	4000	0	0	8.00	0.00	1400000	11200.00	2800.00	1993008.95	27122.38	2022931.33	3.79	47.00	5507.10	8692.90	4.79
87/09/30	4000	0	0	8.00	0.00	1064300	85120.00	21280.00	2022931.33	27529.58	2071740.91	3.91	47.00	41582.90	64817.10	36.44
87/10/31	4000	0	0	8.00	0.00	1431500	114520.00	26830.00	2071740.91	28193.82	2128564.73	4.62	47.00	66140.10	77009.90	49.02
87/11/30	4000	0	0	8.00	0.00	1704500	136360.00	34090.00	2128564.73	28967.12	2191621.85	4.99	47.00	85112.46	85337.54	58.37
87/12/31	4000	0	0	8.00	0.00	2107000	210700.00	42140.00	2191621.85	29825.25	2263587.10	4.70	47.00	98957.20	111742.80	72.16
88/01/31	4000	0	0	8.00	0.00	1960000	156800.00	39700.00	2263587.10	30804.61	2315811.71	5.70	47.00	61061.65	46058.36	36.68
88/02/29	4000	0	0	8.00	0.00	2135000	170800.00	42700.00	2315811.71	31515.32	2386527.03	4.68	47.00	91706.44	104293.56	67.12
88/03/31	4000	0	0	8.00	0.00	2555000	285500.00	51100.00	2461704.70	33500.74	2546305.44	3.27	47.00	83450.37	172049.63	87.50
88/04/30	4000	0	0	8.00	0.00	3160500	316050.00	63210.00	2546305.44	34652.05	2644167.49	4.31	47.00	25623.48	53126.52	26.97
88/05/31	4000	0	0	8.00	0.00	1109500	88760.00	22190.00	2644167.49	35983.83	2702341.33	4.31	47.00	47773.10	63176.90	38.00
88/06/30	4000	0	0	8.00	0.00	787500	63000.00	15750.00	2702341.33	36775.51	2754866.83	3.25	47.00	25623.48	53126.52	26.97
88/07/31	4000	0	0	8.00	0.00	672000	53760.00	13440.00	2754866.83	37490.31	2805797.15	3.47	47.00	25206.08	41993.92	23.01
88/08/31	4000	0	0	8.00	0.00	1060500	86840.00	12390.00	2805797.15	38183.41	2865190.56	2.75	47.00	26151.89	79898.11	36.32
88/09/30	4000	0	0	8.00	0.00	2803500	224280.00	56070.00	2916572.25	39696.92	2916572.25	3.41	47.00	21116.30	40833.70	21.22
88/10/31	4000	0	0	8.00	0.00	1610000	128800.00	32200.00	3012333.17	40994.11	3085527.28	4.00	75.00	95595.35	184750.65	96.01
88/11/30	4000	0	0	8.00	0.00	1029000	83320.00	23580.00	3085527.28	41990.19	3148097.47	5.13	75.00	64400.00	96600.00	55.14
88/12/31	4000	0	0	8.00	0.00	934500	74760.00	18690.00	3148097.47	42841.70	3209679.17	4.97	75.00	52782.66	50117.34	35.24
89/01/31	4000	0	0	8.00	0.00	1522500	121800.00	30450.00	3209679.17	43679.07	3283758.23	4.47	75.00	68111.02	84138.98	52.14
89/02/28	4000	0	0	8.00	0.00	2929500	234360.00	58590.00	3283758.23	44687.87	3387036.10	3.71	75.00	108798.11	184151.89	100.33
89/03/31	4000	0	0	8.00	0.00	3055500	244440.00	61110.00	3387036.10	46093.35	3494239.46	2.76	75.00	84677.55	221072.45	164.64
89/04/30	4000	0	0	8.00	0.00	2495500	199640.00	49910.00	3494239.46	47552.28	3591701.71	2.73	75.00	68251.43	181258.57	85.46
89/05/31	4000	0	0	8.00	0.00	1057000	84560.00	21140.00	3591701.71	48878.60	3661720.31	2.59	75.00	27378.10	78321.90	36.20
89/06/30	4000	0	0	8.00	0.00	1015000	81200.00	20300.00	3661720.31	49831.46	3731851.78	2.54	75.00	25784.66	75735.34	34.76
89/07/31	4000	0	0	8.00	0.00	563500	45080.00	11270.00	3731851.78	50785.87	3793907.64	2.72	75.00	25784.66	75735.34	34.76
89/08/31	4000	0	0	8.00	0.00	1655500	132440.00	33110.00	3793907.64	51630.37	3878648.01	3.32	75.00	54881.31	110668.69	56.70
89/09/30	4000	0	0	8.00	0.00	2968000	237440.00	59360.00	3878648.01	52783.58	3990791.59	3.77	75.00	111830.98	184969.02	101.64
89/10/31	4000	0	0	8.00	0.00	1263500	101080.00	25270.00	3990791.59	54309.72	4070371.51	7.53	75.00	95141.55	31208.45	43.27
89/11/30	4000	0	0	8.00	0.00	1589000	127120.00	31780.00	4070371.51	55392.70	4157544.00	7.53	75.00	119651.70	39248.30	54.42
89/12/31	4000	0	0	8.00	0.00	2383500	190680.00	47820.00	4157544.00	56579.01	4261943.01	7.53	75.00	179477.55	59022.45	81.63
90/01/31	4000	0	0	8.00	0.00	2635000	226800.00	56700.00	4261943.01	57999.75	4376642.76	7.53	75.00	213475.50	70024.50	97.09
90/02/28	4000	0	0	8.00	0.00	0	0.00	0.00	4376642.76	59560.67	4436203.43	7.53	75.00	0.00	0.00	0.00
90/03/31	4000	0	0	8.00	0.00	0	0.00	0.00	4436203.43	60371.22	4496574.65	7.53	75.00	0.00	0.00	0.00
90/04/30	4000	0	0	8.00	0.00	0	0.00	0.00	4496574.65	61192.79	4557247.44	7.53	75.00	0.00	0.00	0.00
90/05/31	4000	0	0	8.00	0.00	0	0.00	0.00	4557247.44	62075.55	4619792.99	7.53	75.00	0.00	0.00	0.00
90/06/30	4000	0	0	8.00	0.00	0	0.00	0.00	4619792.99	62849.64	4682662.63	7.53	75.00	0.00	0.00	0.00
90/07/31	4000	0	0	8.00	0.00	0	0.00	0.00	4682662.63	63725.22	4746387.65	7.53	75.00	0.00	0.00	0.00
90/08/31	4000	0	0	8.00	0.00	0	0.00	0.00	4746387.65	63725.22	4746387.65	7.53	75.00	0.00	0.00	0.00
90/09/30	4000	0	0	8.00	0.00	0	0.00	0.00	4746387.65	63725.22	4746387.65	7.53	75.00	0.00	0.00	0.00

54.98

55.78

58.47

62.62