

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Lead-Lag Study
Cash Working Capital Requirement

Line	Description	Test Year	Average Daily Amount	Revenue Lag	Expense Lag	Net (Lead)/Lag Days	Working Capital Requirement
1	Labor & Operations and Maintenance Expenses						
2	Labor (Payroll)	\$ 15,597,781	\$ 42,734	52.68	(47.23)	5.45	\$ 233,020
3	Non-Labor O&M	14,412,009	39,485	52.68	(35.17)	17.51	691,505
4	Total Labor & Non-Labor Expenses	\$ 30,009,790	\$ 82,219				\$ 924,525
5	Income Taxes						
6	Federal Income Taxes	\$ -	\$ -	52.68	(37.50)	15.18	\$ -
7	State Income Taxes	313,328	858	52.68	(37.50)	15.18	13,030
8	Total Federal Income Taxes	\$ 313,328	\$ 858				\$ 13,030
9	Taxes Other Than Income Taxes						
10	Payroll Taxes	\$ 781,604	\$ 2,141	52.68	(17.95)	34.73	\$ 74,362
11	Property Taxes	11,630,746	31,865	52.68	11.48	64.16	2,044,311
12	Taxes Other Than Income Taxes	\$ 12,412,351	\$ 34,006				\$ 2,118,672
13	Total	\$ 42,735,469	\$ 117,083			26.10	\$ 3,056,227

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Lead-Lag Study
Revenue Lag

Line	Description	Revenue Lag
1	Service Lag	15.21
2	Billing Lag	2.98
3	Collection Lag	34.50
4	<u>Total Revenue Lag</u>	<u>52.68</u>

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Lead-Lag Study
Billing Lag

Line	Cycle Bill Read Date	Bill Mail Date	Billing Lag
1	7/2/2018	7/5/2018	3.00
2	7/3/2018	7/6/2018	3.00
3	7/4/2018	7/9/2018	5.00
4	7/6/2018	7/10/2018	4.00
5	7/9/2018	7/11/2018	2.00
6	7/10/2018	7/12/2018	2.00
7	7/11/2018	7/13/2018	2.00
8	7/12/2018	7/16/2018	4.00
9	7/13/2018	7/17/2018	4.00
10	7/16/2018	7/18/2018	2.00
11	7/17/2018	7/19/2018	2.00
12	7/18/2018	7/20/2018	2.00
13	7/19/2018	7/23/2018	4.00
14	7/20/2018	7/24/2018	4.00
15	7/23/2018	7/25/2018	2.00
16	7/25/2018	7/27/2018	2.00
17	7/26/2018	7/30/2018	4.00
18	7/27/2018	7/31/2018	4.00
19	7/30/2018	7/31/2018	1.00
20	7/30/2018	7/31/2018	1.00
21	8/1/2018	8/2/2018	1.00
22	8/2/2018	8/6/2018	4.00
23	8/3/2018	8/7/2018	4.00
24	8/6/2018	8/8/2018	2.00
25	8/7/2018	8/9/2018	2.00
26	8/8/2018	8/10/2018	2.00
27	8/9/2018	8/13/2018	4.00
28	8/10/2018	8/14/2018	4.00
29	8/10/2018	8/15/2018	5.00
30	8/14/2018	8/16/2018	2.00
31	8/15/2018	8/17/2018	2.00
32	8/16/2018	8/20/2018	4.00
33	8/17/2018	8/21/2018	4.00
34	8/20/2018	8/22/2018	2.00
35	8/21/2018	8/23/2018	2.00
36	8/22/2018	8/24/2018	2.00
37	8/23/2018	8/27/2018	4.00
38	8/24/2018	8/28/2018	4.00
39	8/27/2018	8/29/2018	2.00
40	8/28/2018	8/30/2018	2.00
41	8/30/2018	9/4/2018	5.00
42	8/31/2018	9/5/2018	5.00
43	9/3/2018	9/6/2018	3.00
44	9/5/2018	9/7/2018	2.00
45	9/7/2018	9/10/2018	3.00
46	9/10/2018	9/11/2018	1.00
47	9/10/2018	9/12/2018	2.00
48	9/11/2018	9/13/2018	2.00
49	9/12/2018	9/17/2018	5.00
50	9/13/2018	9/17/2018	4.00
51	9/14/2018	9/18/2018	4.00
52	9/18/2018	9/19/2018	1.00
53	9/19/2018	9/21/2018	2.00
54	9/20/2018	9/24/2018	4.00
55	9/21/2018	9/25/2018	4.00
56	9/24/2018	9/26/2018	2.00
57	9/24/2018	9/27/2018	3.00
58	9/26/2018	9/28/2018	2.00
59	9/27/2018	9/28/2018	1.00
60	9/27/2018	9/28/2018	1.00
61	10/1/2018	10/3/2018	2.00
62	10/2/2018	10/4/2018	2.00
63	10/3/2018	10/5/2018	2.00
64	10/4/2018	10/9/2018	5.00

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Lead-Lag Study
Billing Lag

Line	Cycle Bill Read Date	Bill Mail Date	Billing Lag
65	10/5/2018	10/9/2018	4.00
66	10/8/2018	10/10/2018	2.00
67	10/10/2018	10/12/2018	2.00
68	10/11/2018	10/15/2018	4.00
69	10/12/2018	10/16/2018	4.00
70	10/15/2018	10/17/2018	2.00
71	10/16/2018	10/18/2018	2.00
72	10/17/2018	10/19/2018	2.00
73	10/18/2018	10/22/2018	4.00
74	10/19/2018	10/23/2018	4.00
75	10/22/2018	10/24/2018	2.00
76	10/23/2018	10/25/2018	2.00
77	10/24/2018	10/26/2018	2.00
78	10/25/2018	10/29/2018	4.00
79	10/25/2018	10/30/2018	5.00
80	10/26/2018	10/30/2018	4.00
81	10/30/2018	11/1/2018	2.00
82	10/31/2018	11/2/2018	2.00
83	11/1/2018	11/5/2018	4.00
84	11/2/2018	11/6/2018	4.00
85	11/5/2018	11/10/2018	5.00
86	11/5/2018	11/10/2018	5.00
87	11/6/2018	11/14/2018	8.00
88	11/8/2018	11/14/2018	6.00
89	11/13/2018	11/15/2018	2.00
90	11/13/2018	11/15/2018	2.00
91	11/14/2018	11/16/2018	2.00
92	11/15/2018	11/19/2018	4.00
93	11/16/2018	11/20/2018	4.00
94	11/19/2018	11/21/2018	2.00
95	11/20/2018	11/26/2018	6.00
96	11/23/2018	11/27/2018	4.00
97	11/23/2018	11/28/2018	5.00
98	11/27/2018	11/29/2018	2.00
99	11/27/2018	11/29/2018	2.00
100	11/27/2018	11/29/2018	2.00
101	11/30/2018	12/4/2018	4.00
102	12/3/2018	12/5/2018	2.00
103	12/4/2018	12/6/2018	2.00
104	12/5/2018	12/7/2018	2.00
105	12/6/2018	12/7/2018	1.00
106	12/6/2018	12/11/2018	5.00
107	12/10/2018	12/12/2018	2.00
108	12/11/2018	12/13/2018	2.00
109	12/11/2018	12/14/2018	3.00
110	12/13/2018	12/17/2018	4.00
111	12/14/2018	12/18/2018	4.00
112	12/17/2018	12/19/2018	2.00
113	12/18/2018	12/20/2018	2.00
114	12/18/2018	12/21/2018	3.00
115	12/20/2018	12/24/2018	4.00
116	12/20/2018	12/27/2018	7.00
117	12/24/2018	12/27/2018	3.00
118	12/24/2018	12/28/2018	4.00
119	12/27/2018	12/31/2018	4.00
120	12/28/2018	12/31/2018	3.00
121	1/1/2019	1/4/2019	3.00
122	1/3/2019	1/7/2019	4.00
123	1/4/2019	1/8/2019	4.00
124	1/7/2019	1/8/2019	1.00
125	1/8/2019	1/10/2019	2.00
126	1/9/2019	1/11/2019	2.00
127	1/10/2019	1/14/2019	4.00
128	1/11/2019	1/15/2019	4.00

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Lead-Lag Study
Billing Lag

Line	Cycle Bill Read Date	Bill Mail Date	Billing Lag
129	1/14/2019	1/16/2019	2.00
130	1/15/2019	1/17/2019	2.00
131	1/16/2019	1/18/2019	2.00
132	1/17/2019	1/22/2019	5.00
133	1/18/2019	1/23/2019	5.00
134	1/21/2019	1/24/2019	3.00
135	1/23/2019	1/25/2019	2.00
136	1/25/2019	1/28/2019	3.00
137	1/25/2019	1/29/2019	4.00
138	1/28/2019	1/29/2019	1.00
139	1/29/2019	1/30/2019	1.00
140	1/29/2019	1/31/2019	2.00
141	1/31/2019	2/4/2019	4.00
142	2/1/2019	2/5/2019	4.00
143	2/5/2019	2/6/2019	1.00
144	2/5/2019	2/7/2019	2.00
145	2/6/2019	2/8/2019	2.00
146	2/7/2019	2/11/2019	4.00
147	2/8/2019	2/12/2019	4.00
148	2/11/2019	2/13/2019	2.00
149	2/11/2019	2/14/2019	3.00
150	2/13/2019	2/15/2019	2.00
151	2/14/2019	2/19/2019	5.00
152	2/15/2019	2/20/2019	5.00
153	2/18/2019	2/21/2019	3.00
154	2/20/2019	2/22/2019	2.00
155	2/21/2019	2/25/2019	4.00
156	2/22/2019	2/26/2019	4.00
157	2/25/2019	2/27/2019	2.00
158	2/25/2019	2/27/2019	2.00
159	2/27/2019	2/28/2019	1.00
160	2/27/2019	3/1/2019	2.00
161	3/1/2019	3/5/2019	4.00
162	3/4/2019	3/6/2019	2.00
163	3/5/2019	3/7/2019	2.00
164	3/6/2019	3/8/2019	2.00
165	3/7/2019	3/11/2019	4.00
166	3/8/2019	3/12/2019	4.00
167	3/11/2019	3/13/2019	2.00
168	3/12/2019	3/14/2019	2.00
169	3/13/2019	3/15/2019	2.00
170	3/14/2019	3/18/2019	4.00
171	3/15/2019	3/20/2019	5.00
172	3/18/2019	3/20/2019	2.00
173	3/20/2019	3/22/2019	2.00
174	3/20/2019	3/25/2019	5.00
175	3/22/2019	3/26/2019	4.00
176	3/25/2019	3/27/2019	2.00
177	3/25/2019	3/28/2019	3.00
178	3/27/2019	3/28/2019	1.00
179	3/27/2019	3/29/2019	2.00
180	3/29/2019	4/1/2019	3.00
181	4/1/2019	4/3/2019	2.00
182	4/2/2019	4/4/2019	2.00
183	4/3/2019	4/5/2019	2.00
184	4/4/2019	4/8/2019	4.00
185	4/5/2019	4/9/2019	4.00
186	4/8/2019	4/10/2019	2.00
187	4/9/2019	4/11/2019	2.00
188	4/10/2019	4/12/2019	2.00
189	4/11/2019	4/15/2019	4.00
190	4/12/2019	4/16/2019	4.00
191	4/15/2019	4/19/2019	4.00
192	4/17/2019	4/19/2019	2.00

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Lead-Lag Study
Billing Lag

Line	Cycle Bill Read Date	Bill Mail Date	Billing Lag
193	4/18/2019	4/22/2019	4.00
194	4/19/2019	4/23/2019	4.00
195	4/23/2019	4/25/2019	2.00
196	4/24/2019	4/26/2019	2.00
197	4/25/2019	4/29/2019	4.00
198	4/25/2019	4/29/2019	4.00
199	4/29/2019	4/30/2019	1.00
200	4/29/2019	4/30/2019	1.00
201	5/1/2019	5/3/2019	2.00
202	5/2/2019	5/6/2019	4.00
203	5/3/2019	5/7/2019	4.00
204	5/6/2019	5/8/2019	2.00
205	5/7/2019	5/9/2019	2.00
206	5/8/2019	5/10/2019	2.00
207	5/9/2019	5/13/2019	4.00
208	5/10/2019	5/14/2019	4.00
209	5/13/2019	5/15/2019	2.00
210	5/15/2019	5/17/2019	2.00
211	5/16/2019	5/20/2019	4.00
212	5/17/2019	5/21/2019	4.00
213	5/20/2019	5/23/2019	3.00
214	5/22/2019	5/24/2019	2.00
215	5/23/2019	5/28/2019	5.00
216	5/24/2019	5/29/2019	5.00
217	5/27/2019	5/30/2019	3.00
218	5/29/2019	5/30/2019	1.00
219	5/30/2019	5/31/2019	1.00
220	5/30/2019	6/3/2019	4.00
221	5/31/2019	6/5/2019	5.00
222	6/4/2019	6/6/2019	2.00
223	6/5/2019	6/7/2019	2.00
224	6/6/2019	6/10/2019	4.00
225	6/7/2019	6/11/2019	4.00
226	6/10/2019	6/12/2019	2.00
227	6/11/2019	6/13/2019	2.00
228	6/12/2019	6/14/2019	2.00
229	6/13/2019	6/17/2019	4.00
230	6/13/2019	6/18/2019	5.00
231	6/17/2019	6/19/2019	2.00
232	6/18/2019	6/20/2019	2.00
233	6/19/2019	6/21/2019	2.00
234	6/20/2019	6/24/2019	4.00
235	6/21/2019	6/25/2019	4.00
236	6/24/2019	6/26/2019	2.00
237	6/25/2019	6/27/2019	2.00
238	6/26/2019	6/28/2019	2.00
239	6/27/2019	7/1/2019	4.00
240	6/28/2019	7/2/2019	4.00
241	Average		2.98

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Lead-Lag Study
Collection Lag

Line	Month Start	Month End	Revenues		A/R Balance	
			Monthly Billed Revenues	Daily Average Revenues	Monthly Balance	Collection Lag
1	7/1/2018	7/31/2018	\$ 4,726,884	\$ 152,480	\$ 10,524,741	
2	8/1/2018	8/31/2018	4,151,588	133,922	7,630,826	
3	9/1/2018	9/30/2018	4,473,229	149,108	6,754,410	
4	10/1/2018	10/31/2018	5,358,972	172,870	5,738,830	
5	11/1/2018	11/30/2018	11,158,206	371,940	9,726,402	
6	12/1/2018	12/31/2018	22,304,497	719,500	19,326,273	
7	1/1/2019	1/31/2019	27,438,794	885,122	24,912,937	
8	2/1/2019	2/28/2019	29,015,148	1,036,255	29,324,575	
9	3/1/2019	3/31/2019	24,964,414	805,304	27,787,409	
10	4/1/2019	4/30/2019	18,088,145	602,938	22,259,634	
11	5/1/2019	5/31/2019	11,418,170	368,328	16,547,575	
12	6/1/2019	6/30/2019	6,826,917	227,564	13,517,895	
		Average		\$ 468,778	\$ 16,170,959	34.50
						34.50

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Lead-Lag Study
O&M Expenses

Line	Description	Expense	(Lead)/Lag Days	Dollar Days
1	Labor-Related - O&M Expenses	\$ 15,597,781	(47.23)	\$ (736,628,776)
2	Non-Labor - Other O&M Expenses	14,412,009	(35.17)	\$ (506,815,818)
3	Total O&M Expenses	\$ 30,009,790	(41.43)	\$ (1,243,444,594)

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Lead-Lag Study
O&M Expenses - Payroll

Line	Description	Expense	Percent	(Lead)/Lag Days	Dollar Days
1	Regular Payroll - Weekly	\$ 8,028,330	64.4%	(8.50)	\$ (68,240,802)
2	Regular Payroll - Bi-Weekly	\$ 4,442,932	35.6%	(12.00)	\$ (53,315,180)
3	Regular Payroll - Total	\$ 12,471,261	100.00%	(9.75)	\$ (121,555,983)
4	Regular Payroll - Regular Pay	\$ 12,471,261	91.64%	(9.75)	\$ (121,555,983)
5	Regular Payroll - Vacation Pay	\$ 1,137,943	8.36%	(192.25)	\$ (218,766,040)
6	Regular Payroll - Total	\$ 13,609,205	100.00%	(25.01)	\$ (340,322,023)
7	Annual Performance Incentive Pay	\$ 1,988,577		(199.29)	\$ (396,306,753)
8	Payroll - Total	\$ 15,597,781		(47.23)	\$ (736,628,776)

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Lead-Lag Study
O&M Expenses - Labor-Related - Regular Payroll - Weekly

Line	Pay Period - Start	Pay Period - End	Pay Period - Midpoint	Pay Date	(Lead)/Lag Days
1	Sunday, July 1, 2018	Saturday, July 7, 2018	Wednesday, July 4, 2018	Friday, July 13, 2018	(8.50)
2	Sunday, July 8, 2018	Saturday, July 14, 2018	Wednesday, July 11, 2018	Friday, July 20, 2018	(8.50)
3	Sunday, July 15, 2018	Saturday, July 21, 2018	Wednesday, July 18, 2018	Friday, July 27, 2018	(8.50)
4	Sunday, July 22, 2018	Saturday, July 28, 2018	Wednesday, July 25, 2018	Friday, August 3, 2018	(8.50)
5	Sunday, July 29, 2018	Saturday, August 4, 2018	Wednesday, August 1, 2018	Friday, August 10, 2018	(8.50)
6	Sunday, August 5, 2018	Saturday, August 11, 2018	Wednesday, August 8, 2018	Friday, August 17, 2018	(8.50)
7	Sunday, August 12, 2018	Saturday, August 18, 2018	Wednesday, August 15, 2018	Friday, August 24, 2018	(8.50)
8	Sunday, August 19, 2018	Saturday, August 25, 2018	Wednesday, August 22, 2018	Friday, August 31, 2018	(8.50)
9	Sunday, August 26, 2018	Saturday, September 1, 2018	Wednesday, August 29, 2018	Friday, September 7, 2018	(8.50)
10	Sunday, September 2, 2018	Saturday, September 8, 2018	Wednesday, September 5, 2018	Friday, September 14, 2018	(8.50)
11	Sunday, September 9, 2018	Saturday, September 15, 2018	Wednesday, September 12, 2018	Friday, September 21, 2018	(8.50)
12	Sunday, September 16, 2018	Saturday, September 22, 2018	Wednesday, September 19, 2018	Friday, September 28, 2018	(8.50)
13	Sunday, September 23, 2018	Saturday, September 29, 2018	Wednesday, September 26, 2018	Friday, October 5, 2018	(8.50)
14	Sunday, September 30, 2018	Saturday, October 6, 2018	Wednesday, October 3, 2018	Friday, October 12, 2018	(8.50)
15	Sunday, October 7, 2018	Saturday, October 13, 2018	Wednesday, October 10, 2018	Friday, October 19, 2018	(8.50)
16	Sunday, October 14, 2018	Saturday, October 20, 2018	Wednesday, October 17, 2018	Friday, October 26, 2018	(8.50)
17	Sunday, October 21, 2018	Saturday, October 27, 2018	Wednesday, October 24, 2018	Friday, November 2, 2018	(8.50)
18	Sunday, October 28, 2018	Saturday, November 3, 2018	Wednesday, October 31, 2018	Friday, November 9, 2018	(8.50)
19	Sunday, November 4, 2018	Saturday, November 10, 2018	Wednesday, November 7, 2018	Friday, November 16, 2018	(8.50)
20	Sunday, November 11, 2018	Saturday, November 17, 2018	Wednesday, November 14, 2018	Friday, November 23, 2018	(8.50)
21	Sunday, November 18, 2018	Saturday, November 24, 2018	Wednesday, November 21, 2018	Friday, November 30, 2018	(8.50)
22	Sunday, November 25, 2018	Saturday, December 1, 2018	Wednesday, November 28, 2018	Friday, December 7, 2018	(8.50)
23	Sunday, December 2, 2018	Saturday, December 8, 2018	Wednesday, December 5, 2018	Friday, December 14, 2018	(8.50)
24	Sunday, December 9, 2018	Saturday, December 15, 2018	Wednesday, December 12, 2018	Friday, December 21, 2018	(8.50)
25	Sunday, December 16, 2018	Saturday, December 22, 2018	Wednesday, December 19, 2018	Friday, December 28, 2018	(8.50)
26	Sunday, December 23, 2018	Saturday, December 29, 2018	Wednesday, December 26, 2018	Friday, January 4, 2019	(8.50)
27	Sunday, December 30, 2018	Saturday, January 5, 2019	Wednesday, January 2, 2019	Friday, January 11, 2019	(8.50)
28	Sunday, January 6, 2019	Saturday, January 12, 2019	Wednesday, January 9, 2019	Friday, January 18, 2019	(8.50)
29	Sunday, January 13, 2019	Saturday, January 19, 2019	Wednesday, January 16, 2019	Friday, January 25, 2019	(8.50)
30	Sunday, January 20, 2019	Saturday, January 26, 2019	Wednesday, January 23, 2019	Friday, February 1, 2019	(8.50)
31	Sunday, January 27, 2019	Saturday, February 2, 2019	Wednesday, January 30, 2019	Friday, February 8, 2019	(8.50)
32	Sunday, February 3, 2019	Saturday, February 9, 2019	Wednesday, February 6, 2019	Friday, February 15, 2019	(8.50)
33	Sunday, February 10, 2019	Saturday, February 16, 2019	Wednesday, February 13, 2019	Friday, February 22, 2019	(8.50)
34	Sunday, February 17, 2019	Saturday, February 23, 2019	Wednesday, February 20, 2019	Friday, March 1, 2019	(8.50)

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Lead-Lag Study
O&M Expenses - Labor-Related - Regular Payroll - Weekly

Line	Pay Period - Start	Pay Period - End	Pay Period - Midpoint	Pay Date	(Lead)/Lag Days
35	Sunday, February 24, 2019	Saturday, March 2, 2019	Wednesday, February 27, 2019	Friday, March 8, 2019	(8.50)
36	Sunday, March 3, 2019	Saturday, March 9, 2019	Wednesday, March 6, 2019	Friday, March 15, 2019	(8.50)
37	Sunday, March 10, 2019	Saturday, March 16, 2019	Wednesday, March 13, 2019	Friday, March 22, 2019	(8.50)
38	Sunday, March 17, 2019	Saturday, March 23, 2019	Wednesday, March 20, 2019	Friday, March 29, 2019	(8.50)
39	Sunday, March 24, 2019	Saturday, March 30, 2019	Wednesday, March 27, 2019	Friday, April 5, 2019	(8.50)
40	Sunday, March 31, 2019	Saturday, April 6, 2019	Wednesday, April 3, 2019	Friday, April 12, 2019	(8.50)
41	Sunday, April 7, 2019	Saturday, April 13, 2019	Wednesday, April 10, 2019	Friday, April 19, 2019	(8.50)
42	Sunday, April 14, 2019	Saturday, April 20, 2019	Wednesday, April 17, 2019	Friday, April 26, 2019	(8.50)
43	Sunday, April 21, 2019	Saturday, April 27, 2019	Wednesday, April 24, 2019	Friday, May 3, 2019	(8.50)
44	Sunday, April 28, 2019	Saturday, May 4, 2019	Wednesday, May 1, 2019	Friday, May 10, 2019	(8.50)
45	Sunday, May 5, 2019	Saturday, May 11, 2019	Wednesday, May 8, 2019	Friday, May 17, 2019	(8.50)
46	Sunday, May 12, 2019	Saturday, May 18, 2019	Wednesday, May 15, 2019	Friday, May 24, 2019	(8.50)
47	Sunday, May 19, 2019	Saturday, May 25, 2019	Wednesday, May 22, 2019	Friday, May 31, 2019	(8.50)
48	Sunday, May 26, 2019	Saturday, June 1, 2019	Wednesday, May 29, 2019	Friday, June 7, 2019	(8.50)
49	Sunday, June 2, 2019	Saturday, June 8, 2019	Wednesday, June 5, 2019	Friday, June 14, 2019	(8.50)
50	Sunday, June 9, 2019	Saturday, June 15, 2019	Wednesday, June 12, 2019	Friday, June 21, 2019	(8.50)
51	Sunday, June 16, 2019	Saturday, June 22, 2019	Wednesday, June 19, 2019	Friday, June 28, 2019	(8.50)
52	Sunday, June 23, 2019	Saturday, June 29, 2019	Wednesday, June 26, 2019	Friday, July 5, 2019	(8.50)
53				Average	(8.50)

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Lead-Lag Study
O&M Expenses - Labor-Related - Regular Payroll - Bi-Weekly

Line	Pay Period - Start	Pay Period - End	Pay Period - Midpoint	Pay Date	(Lead)/Lag Days
1	Sunday, June 24, 2018	Saturday, July 7, 2018	Sunday, July 1, 2018	Friday, July 13, 2018	(12.00)
2	Sunday, July 8, 2018	Saturday, July 21, 2018	Sunday, July 15, 2018	Friday, July 27, 2018	(12.00)
3	Sunday, July 22, 2018	Saturday, August 4, 2018	Sunday, July 29, 2018	Friday, August 10, 2018	(12.00)
4	Sunday, August 5, 2018	Saturday, August 18, 2018	Sunday, August 12, 2018	Friday, August 24, 2018	(12.00)
5	Sunday, August 19, 2018	Saturday, September 1, 2018	Sunday, August 26, 2018	Friday, September 7, 2018	(12.00)
6	Sunday, September 2, 2018	Saturday, September 15, 2018	Sunday, September 9, 2018	Friday, September 21, 2018	(12.00)
7	Sunday, September 16, 2018	Saturday, September 29, 2018	Sunday, September 23, 2018	Friday, October 5, 2018	(12.00)
8	Sunday, September 30, 2018	Saturday, October 13, 2018	Sunday, October 7, 2018	Friday, October 19, 2018	(12.00)
9	Sunday, October 14, 2018	Saturday, October 27, 2018	Sunday, October 21, 2018	Friday, November 2, 2018	(12.00)
10	Sunday, October 28, 2018	Saturday, November 10, 2018	Sunday, November 4, 2018	Friday, November 16, 2018	(12.00)
11	Sunday, November 11, 2018	Saturday, November 24, 2018	Sunday, November 18, 2018	Friday, November 30, 2018	(12.00)
12	Sunday, November 25, 2018	Saturday, December 8, 2018	Sunday, December 2, 2018	Friday, December 14, 2018	(12.00)
13	Sunday, December 9, 2018	Saturday, December 22, 2018	Sunday, December 16, 2018	Friday, December 28, 2018	(12.00)
14	Sunday, December 23, 2018	Saturday, January 5, 2019	Sunday, December 30, 2018	Friday, January 11, 2019	(12.00)
15	Sunday, January 6, 2019	Saturday, January 19, 2019	Sunday, January 13, 2019	Friday, January 25, 2019	(12.00)
16	Sunday, January 20, 2019	Saturday, February 2, 2019	Sunday, January 27, 2019	Friday, February 8, 2019	(12.00)
17	Sunday, February 3, 2019	Saturday, February 16, 2019	Sunday, February 10, 2019	Friday, February 22, 2019	(12.00)
18	Sunday, February 17, 2019	Saturday, March 2, 2019	Sunday, February 24, 2019	Friday, March 8, 2019	(12.00)
19	Sunday, March 3, 2019	Saturday, March 16, 2019	Sunday, March 10, 2019	Friday, March 22, 2019	(12.00)
20	Sunday, March 17, 2019	Saturday, March 30, 2019	Sunday, March 24, 2019	Friday, April 5, 2019	(12.00)
21	Sunday, March 31, 2019	Saturday, April 13, 2019	Sunday, April 7, 2019	Friday, April 19, 2019	(12.00)
22	Sunday, April 14, 2019	Saturday, April 27, 2019	Sunday, April 21, 2019	Friday, May 3, 2019	(12.00)
23	Sunday, April 28, 2019	Saturday, May 11, 2019	Sunday, May 5, 2019	Friday, May 17, 2019	(12.00)
24	Sunday, May 12, 2019	Saturday, May 25, 2019	Sunday, May 19, 2019	Friday, May 31, 2019	(12.00)
25	Sunday, May 26, 2019	Saturday, June 8, 2019	Sunday, June 2, 2019	Friday, June 14, 2019	(12.00)
26	Sunday, June 9, 2019	Saturday, June 22, 2019	Sunday, June 16, 2019	Friday, June 28, 2019	(12.00)
Average					(12.00)

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Lead-Lag Study
O&M Expenses - Labor-Related - Annual Performance Bonus

Line	Accrual Date	Midpoint	Payout Date	(Lead)/Lag Days
1	7/1/2018	7/16/2018	4/18/2019	(276.00)
2	8/1/2018	8/16/2018	4/18/2019	(245.00)
3	9/1/2018	9/15/2018	4/18/2019	(214.50)
4	10/1/2018	10/16/2018	4/18/2019	(184.00)
5	11/1/2018	11/15/2018	4/18/2019	(153.50)
6	12/1/2018	12/16/2018	4/18/2019	(123.00)
7	1/1/2019	1/16/2019	4/18/2019	(92.00)
8	2/1/2019	2/14/2019	4/18/2019	(62.50)
9	3/1/2019	3/16/2019	4/18/2019	(33.00)
10	4/1/2019	4/15/2019	4/16/2020	(366.50)
11	5/1/2019	5/16/2019	4/16/2020	(336.00)
12	6/1/2019	6/15/2019	4/16/2020	(305.50)
13	7/1/2019			
			Average	(199.29)

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Lead-Lag Study
O&M Expenses - Non-Labor O&M Expenses

Line	Service Period Begin	Service Period End	Midpoint of Service	Invoice Date	Payment Date	Payment Amount	Payment (Lead)/Lag Days	Dollar Days
1				7/3/2018	7/16/2018	4,510.00	(13.00)	(58,630)
2				10/10/2018	10/19/2018	411.88	(9.00)	(3,707)
3	8/1/2018	8/30/2018	8/15/2018	8/24/2018	10/16/2018	128,797.14	(61.50)	(7,921,024)
4				3/3/2019	5/8/2019	5,305.44	(66.00)	(350,159)
5				7/9/2018	8/3/2018	500	(25.00)	(12,500)
6				2/12/2019	3/22/2019	3,330.00	(38.00)	(126,540)
7				6/16/2018	7/19/2018	8,765.25	(33.00)	(289,253)
8				5/31/2019	6/18/2019	271	(18.00)	(4,878)
9				11/12/2018	12/7/2018	148.89	(25.00)	(3,722)
10				5/28/2019	6/27/2019	45893.95	(30.00)	(1,376,819)
11				2/21/2019	3/19/2019	88.35	(26.00)	(2,297)
12				12/10/2018	1/11/2019	199.5	(32.00)	(6,384)
13				10/20/2018	1/3/2019	502.4	(75.00)	(37,680)
14				11/30/2018	12/21/2018	227.7	(21.00)	(4,782)
15				6/21/2018	7/19/2018	654.49	(28.00)	(18,326)
16				4/24/2019	5/31/2019	155.97	(37.00)	(5,771)
17				10/31/2018	1/4/2019	406	(65.00)	(26,390)
18				12/27/2018	1/28/2019	14.89	(32.00)	(476)
19				6/14/2018	7/13/2018	633.44	(29.00)	(18,370)
20				11/8/2018	11/30/2018	7,869.26	(22.00)	(173,124)
21				4/30/2019	5/29/2019	1,171.82	(29.00)	(33,983)
22				7/25/2018	8/1/2018	2,875.00	(7.00)	(20,125)
23				11/2/2018	11/30/2018	1,343.05	(28.00)	(37,605)
24				5/20/2019	6/20/2019	3,492.01	(31.00)	(108,252)
25				6/6/2018	7/5/2018	905.89	(29.00)	(26,271)
26				1/9/2019	1/11/2019	1,497.00	(2.00)	(2,994)
27				2/7/2019	4/26/2019	116.84	(78.00)	(9,114)
28				7/26/2018	9/20/2018	4,140.00	(56.00)	(231,840)
29				3/21/2019	4/12/2019	3,920.67	(22.00)	(86,255)
30				2/2/2019	3/8/2019	1,319.50	(34.00)	(44,863)
31				4/22/2019	5/16/2019	7,741.00	(24.00)	(185,784)
32				10/22/2018	12/6/2018	614	(45.00)	(27,630)
33				10/25/2018	11/29/2018	244.2	(35.00)	(8,547)
34				1/17/2019	2/4/2019	435	(18.00)	(7,830)
35				5/29/2018	8/17/2018	235.17	(80.00)	(18,814)
36				8/31/2018	9/4/2018	28,669.97	(4.00)	(114,680)
37				12/20/2018	12/31/2018	39.62	(11.00)	(436)
38				11/9/2018	11/30/2018	8,497.94	(21.00)	(178,457)
39				2/18/2019	3/20/2019	10,860.50	(30.00)	(325,815)
40				8/10/2018	9/7/2018	8,604.41	(28.00)	(240,923)
41				1/28/2019	1/31/2019	325	(3.00)	(975)
42				4/16/2018	7/5/2018	944.58	(80.00)	(75,566)
43				7/19/2018	8/17/2018	235.58	(29.00)	(6,832)
44				5/9/2019	6/11/2019	361.29	(33.00)	(11,923)
45				2/27/2019	4/9/2019	3,494.50	(41.00)	(143,275)
46				2/19/2019	3/15/2019	369.86	(24.00)	(8,877)
47				8/17/2018	9/12/2018	68.92	(26.00)	(1,792)
48				11/26/2018	12/20/2018	887.75	(24.00)	(21,306)
49				10/24/2018	11/2/2018	186.57	(9.00)	(1,679)
50				5/12/2018	8/23/2018	5,894.25	(103.00)	(607,108)
51				4/24/2019	5/9/2019	385	(15.00)	(5,775)
52				8/10/2018	9/20/2018	3,764.78	(41.00)	(154,356)
53				9/4/2018	9/13/2018	47,010.26	(9.00)	(423,092)
54				7/28/2018	8/31/2018	9,693.25	(34.00)	(329,571)
55				4/4/2019	4/23/2019	46,856.72	(19.00)	(890,278)
56				5/21/2019	6/7/2019	8,608.33	(17.00)	(146,342)
57				4/11/2019	4/22/2019	526.59	(11.00)	(5,792)
58				12/2/2018	3/22/2019	792	(110.00)	(87,120)
59	10/17/2018	11/13/2018	10/30/2018	11/27/2018	1/3/2019	120,668.38	(64.50)	(7,783,111)
60				10/3/2018	11/2/2018	15.98	(30.00)	(479)
61				9/19/2018	10/10/2018	467.6	(21.00)	(9,820)
62				2/5/2019	3/1/2019	602	(24.00)	(14,448)
63				6/23/2018	7/19/2018	2,084.09	(26.00)	(54,186)
64				9/13/2018	10/3/2018	5,312.70	(20.00)	(106,254)

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Lead-Lag Study
O&M Expenses - Non-Labor O&M Expenses

Line	Service Period Begin	Service Period End	Midpoint of Service	Invoice Date	Payment Date	Payment Amount	Payment (Lead)/Lag Days	Dollar Days
65				1/14/2019	2/8/2019	1,667.22	(25.00)	(41,681)
66				1/4/2019	1/11/2019	260.1	(7.00)	(1,821)
67				2/5/2019	2/22/2019	164.36	(17.00)	(2,794)
68	12/1/2018	12/31/2018	12/16/2018	12/31/2018	1/17/2019	230,219.48	(32.00)	(7,367,023)
69				9/1/2018	9/27/2018	8,461.91	(26.00)	(220,010)
70				1/31/2019	3/1/2019	113.36	(29.00)	(3,287)
71				10/22/2018	11/8/2018	1,367.69	(17.00)	(23,251)
72				10/27/2018	11/28/2018	218.65	(32.00)	(6,997)
73				4/2/2019	5/8/2019	4,885.00	(36.00)	(175,860)
74				7/17/2018	8/7/2018	6,755.00	(21.00)	(141,855)
75				2/6/2019	2/15/2019	6,000.00	(9.00)	(54,000)
76				2/14/2019	3/8/2019	865.72	(22.00)	(19,046)
77				6/14/2018	7/13/2018	943.88	(29.00)	(27,373)
78				2/14/2019	3/8/2019	1,546.41	(22.00)	(34,021)
79				6/23/2018	7/19/2018	1,124.66	(26.00)	(29,241)
80				5/11/2019	6/12/2019	7,095.00	(32.00)	(227,040)
81				6/27/2018	7/9/2018	290.67	(12.00)	(3,488)
82	4/1/2019	4/30/2019	4/15/2019	4/24/2019	5/21/2019	196,534.39	(35.50)	(6,976,971)
83				9/20/2018	9/26/2018	6,261.10	(6.00)	(37,567)
84				3/25/2019	3/29/2019	163.79	(4.00)	(655)
85				3/22/2019	4/12/2019	2,441.38	(21.00)	(51,269)
86				7/20/2018	10/3/2018	576.5	(75.00)	(43,238)
87				1/9/2019	2/1/2019	30,446.47	(23.00)	(700,269)
88				11/7/2018	11/19/2018	13,066.44	(12.00)	(156,797)
89				7/5/2018	7/19/2018	23.01	(14.00)	(322)
90				5/3/2019	5/8/2019	600	(5.00)	(3,000)
91				10/23/2018	10/23/2018	31,298.51	0.00	-
92				5/28/2018	7/19/2018	942.49	(52.00)	(49,009)
93				8/8/2018	9/7/2018	1,250.00	(30.00)	(37,500)
94				9/28/2018	10/16/2018	3,201.41	(18.00)	(57,625)
95				1/18/2019	2/22/2019	9,113.09	(35.00)	(318,958)
96				5/9/2019	6/20/2019	3,252.85	(42.00)	(136,620)
97				2/28/2019	3/8/2019	346.26	(8.00)	(2,770)
98				1/23/2019	2/4/2019	1,232.88	(12.00)	(14,795)
99				2/25/2019	3/15/2019	15.37	(18.00)	(277)
100				4/27/2019	6/6/2019	7,597.50	(40.00)	(303,900)
101				9/11/2018	10/4/2018	2,270.40	(23.00)	(52,219)
102				10/30/2018	11/15/2018	69.15	(16.00)	(1,106)
103				10/4/2018	11/2/2018	982.35	(29.00)	(28,488)
104				10/27/2018	1/25/2019	3,262.32	(90.00)	(293,609)
105				7/20/2018	8/23/2018	1,725.00	(34.00)	(58,650)
106				1/11/2019	2/7/2019	533.92	(27.00)	(14,416)
107				1/25/2019	3/1/2019	5,297.03	(35.00)	(185,396)
108				9/8/2018	10/18/2018	2,023.85	(40.00)	(80,954)
109	2/1/2019	2/28/2019	2/14/2019	2/22/2019	3/14/2019	228,933.26	(27.50)	(6,295,665)
110				12/20/2018	2/5/2019	2,797.86	(47.00)	(131,499)
111				8/17/2018	8/24/2018	121.72	(7.00)	(852)
112				8/8/2018	8/28/2018	539	(20.00)	(10,780)
113				4/22/2019	5/9/2019	68	(17.00)	(1,156)
114				1/11/2019	1/23/2019	14,900.00	(12.00)	(178,800)
115				2/7/2019	3/1/2019	280.02	(22.00)	(6,160)
116				3/31/2019	4/26/2019	589.65	(26.00)	(15,331)
117				4/30/2019	5/29/2019	8,000.00	(29.00)	(232,000)
118				5/17/2019	6/18/2019	64.32	(32.00)	(2,058)
119				10/1/2018	12/7/2018	195	(67.00)	(13,065)
120				6/29/2018	8/23/2018	2,709.00	(55.00)	(148,995)
121				6/13/2018	7/19/2018	54.39	(36.00)	(1,958)
122				1/24/2019	2/8/2019	9,120.50	(15.00)	(136,808)
123				7/3/2018	8/10/2018	249.93	(38.00)	(9,497)
124	4/17/2018	6/9/2018	5/13/2018	6/26/2018	9/12/2018	64,453.03	(121.50)	(7,831,043)
125				5/28/2018	7/5/2018	1,255.77	(38.00)	(47,719)
126				1/17/2019	2/14/2019	46.38	(28.00)	(1,299)
127				5/24/2019	6/12/2019	99	(19.00)	(1,881)
128				4/26/2019	6/6/2019	569.1	(41.00)	(23,333)
129				6/26/2018	7/26/2018	3,436.39	(30.00)	(103,092)

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Lead-Lag Study
O&M Expenses - Non-Labor O&M Expenses

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Line	Service Period Begin	Service Period End	Midpoint of Service	Invoice Date	Payment Date	Payment Amount	Payment (Lead)/Lag Days	Dollar Days
130				8/17/2018	10/18/2018	2,301.17	(62.00)	(142,673)
131				12/8/2018	1/3/2019	41,010.38	(26.00)	(1,066,270)
132				1/14/2019	1/28/2019	1,011.83	(14.00)	(14,166)
133				2/8/2019	2/14/2019	229.68	(6.00)	(1,378)
134				1/4/2019	1/4/2019	2,395.46	0.00	-
135				5/21/2019	6/7/2019	435	(17.00)	(7,395)
136				12/31/2018	2/1/2019	288.88	(32.00)	(9,244)
137				2/27/2019	3/1/2019	126.98	(2.00)	(254)
138				11/26/2018	1/3/2019	802	(38.00)	(30,476)
139				7/12/2018	8/10/2018	242.64	(29.00)	(7,037)
140				5/31/2018	7/19/2018	9,900.00	(49.00)	(485,100)
141				9/15/2018	10/18/2018	1,982.72	(33.00)	(65,430)
142				2/2/2019	3/5/2019	6,670.00	(31.00)	(206,770)
143				10/9/2018	11/2/2018	882.3	(24.00)	(21,175)
144				11/24/2018	1/4/2019	2,015.50	(41.00)	(82,636)
145				6/30/2018	8/3/2018	3,610.50	(34.00)	(122,757)
146				7/31/2018	7/31/2018	34,619.32	0.00	-
147				3/10/2019	4/3/2019	2,775.50	(24.00)	(66,612)
148				3/20/2019	4/8/2019	2,413.90	(19.00)	(45,864)
149				9/5/2018	9/26/2018	9,091.50	(21.00)	(190,922)
150				10/1/2018	11/2/2018	735.01	(32.00)	(23,520)
151				9/29/2018	11/19/2018	1,018.74	(51.00)	(51,956)
152				2/4/2019	2/8/2019	212.4	(4.00)	(850)
153				2/4/2019	3/1/2019	369.9	(25.00)	(9,248)
154				9/27/2018	11/2/2018	5,900.00	(36.00)	(212,400)
155				7/24/2018	8/3/2018	91.54	(10.00)	(915)
156				12/15/2018	1/11/2019	1,804.87	(27.00)	(48,731)
157				4/16/2019	5/8/2019	4,673.96	(22.00)	(102,827)
158				5/7/2019	5/29/2019	1,604.31	(22.00)	(35,295)
159				1/28/2019	1/31/2019	325	(3.00)	(975)
160				3/1/2019	3/8/2019	48.40	(7.00)	(339)
161				11/24/2018	1/4/2019	2,051.75	(41.00)	(84,122)
162				9/29/2018	11/19/2018	1,791.37	(51.00)	(91,360)
163				8/2/2018	8/28/2018	640	(26.00)	(16,640)
164				7/11/2018	8/9/2018	5,301.97	(29.00)	(153,757)
165				8/3/2018	8/7/2018	600	(4.00)	(2,400)
166	6/30/2018	6/30/2018	6/30/2018	7/12/2018	7/24/2018	53,415.29	(24.00)	(1,281,967)
167				10/24/2018	11/29/2018	4,712.50	(36.00)	(169,650)
168	7/1/2018	7/31/2018	7/16/2018	7/25/2018	8/14/2018	68,250.77	(29.00)	(1,979,272)
169				11/9/2018	11/30/2018	225.41	(21.00)	(4,734)
170				2/26/2019	3/14/2019	1,082.09	(16.00)	(17,313)
171				6/30/2018	8/2/2018	160.16	(33.00)	(5,285)
172				7/11/2018	8/10/2018	3,407.50	(30.00)	(102,225)
173				7/24/2018	8/23/2018	2,992.90	(30.00)	(89,787)
174				8/17/2018	9/12/2018	5,226.80	(26.00)	(135,897)
175				8/14/2018	9/7/2018	247	(24.00)	(5,928)
176				8/22/2018	9/20/2018	651.3	(29.00)	(18,888)
177				10/4/2018	11/2/2018	717.3	(29.00)	(20,802)
178				7/12/2018	8/10/2018	1,606.96	(29.00)	(46,602)
179				9/18/2018	10/10/2018	935	(22.00)	(20,570)
180				7/27/2018	8/23/2018	21.81	(27.00)	(589)
181				1/28/2019	1/31/2019	325	(3.00)	(975)
182				9/28/2018	10/24/2018	19,622.11	(26.00)	(510,175)
183				5/4/2019	6/11/2019	23,121.46	(38.00)	(878,615)
184				12/10/2018	12/14/2018	446.62	(4.00)	(1,786)
185				12/14/2018	1/11/2019	33,466.23	(28.00)	(937,054)
186				9/24/2018	10/12/2018	408.29	(18.00)	(7,349)
187				2/28/2019	4/3/2019	1,036.66	(34.00)	(35,246)
188				6/1/2019	6/6/2019	7,150.00	(5.00)	(35,750)
189				1/3/2019	2/8/2019	351.5	(36.00)	(12,654)
190				11/14/2018	12/6/2018	3,482.08	(22.00)	(76,606)
191				6/16/2018	8/3/2018	5,198.25	(48.00)	(249,516)
192				2/15/2019	3/8/2019	9,405.30	(21.00)	(197,511)
193				8/21/2018	9/7/2018	64.71	(17.00)	(1,100)
194				10/12/2018	10/19/2018	544.87	(7.00)	(3,814)

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Lead-Lag Study
O&M Expenses - Non-Labor O&M Expenses

Line	Service Period Begin	Service Period End	Midpoint of Service	Invoice Date	Payment Date	Payment Amount	Payment (Lead)/Lag Days	Dollar Days
195				10/31/2018	11/28/2018	1,193.19	(28.00)	(33,409)
196				8/1/2018	8/9/2018	375	(8.00)	(3,000)
197				7/2/2018	7/26/2018	21.3	(24.00)	(511)
198				6/13/2019	6/19/2019	666.3	(6.00)	(3,998)
199				2/5/2019	2/15/2019	1,027.50	(10.00)	(10,275)
200				4/15/2019	5/9/2019	272.66	(24.00)	(6,544)
201								
202					Total	\$ 1,891,760	(35.17)	\$ (66,526,052)
203								

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Lead-Lag Study
Income Tax

Line	Quarter	Service Period Start	Service Period End	Midpoint of Service Period	Payment Date	Percent of Taxes Due	Days from Midpoint to Payment Date	(Lead)/Lag Days
1	First Quarter	7/1/2018	6/30/2019	12/30/2018	9/15/2018	25.00%	106.50	26.63
2	Second Quarter	7/1/2018	6/30/2019	12/30/2018	12/15/2018	25.00%	15.50	3.88
3	Third Quarter	7/1/2018	6/30/2019	12/30/2018	4/15/2019	25.00%	(105.50)	(26.38)
4	Fourth Quarter	7/1/2018	6/30/2019	12/30/2018	6/15/2019	25.00%	(166.50)	(41.63)
5	<u>Income Tax (Lead)/Lag Days</u>							<u>(37.50)</u>

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Lead-Lag Study
Taxes Other Than Income Tax

Line	Description	Amount	(Lead)/Lag Days	Dollar Days	Composite (Lead)/Lag Days
	Payroll Taxes				
1	FICA	\$ 1,248,437	(16.16)	\$ (20,170,096)	
2	Federal Unemployment	10,463	(30.75)	(321,731)	
3	State Unemployment	24,063	(105.63)	(2,541,699)	
4	Total Payroll Taxes	\$ 1,282,963		\$ (23,033,526)	(17.95)
5	Property Taxes	\$ 11,630,746	11.48	133,473,347	11.48

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Lead-Lag Study
FICA

Line	Pay-Period End	Payment Date	Amount	(Lead)/Lag Days	Dollar Days
1	6/30/2018	7/6/2018	\$ 13,123	(6.00)	\$ (78,735)
2	7/7/2018	7/13/2018	\$ 36,216	(6.00)	(217,295)
3	7/14/2018	7/20/2018	\$ 13,345	(6.00)	(80,069)
4	7/21/2018	7/27/2018	\$ 30,745	(6.00)	(184,469)
5	7/28/2018	8/3/2018	\$ 13,195	(6.00)	(79,168)
6	8/4/2018	8/10/2018	\$ 31,540	(6.00)	(189,243)
7	8/11/2018	8/17/2018	\$ 13,555	(6.00)	(81,328)
8	8/18/2018	8/24/2018	\$ 31,367	(6.00)	(188,201)
9	8/25/2018	8/31/2018	\$ 12,278	(6.00)	(73,668)
10	9/1/2018	9/7/2018	\$ 30,022	(6.00)	(180,132)
11	9/8/2018	9/14/2018	\$ 12,607	(6.00)	(75,640)
12	9/15/2018	9/21/2018	\$ 30,338	(6.00)	(182,025)
13	9/22/2018	9/28/2018	\$ 13,929	(6.00)	(83,571)
14	9/29/2018	10/5/2018	\$ 29,591	(6.00)	(177,548)
15	10/6/2018	10/12/2018	\$ 11,440	(6.00)	(68,640)
16	10/13/2018	10/19/2018	\$ 29,557	(6.00)	(177,344)
17	10/20/2018	10/26/2018	\$ 13,667	(6.00)	(82,001)
18	10/27/2018	11/2/2018	\$ 29,073	(6.00)	(174,437)
19	11/3/2018	11/9/2018	\$ 12,794	(6.00)	(76,764)
20	11/10/2018	11/16/2018	\$ 29,908	(6.00)	(179,446)
21	11/17/2018	11/23/2018	\$ 13,732	(6.00)	(82,390)
22	11/24/2018	11/30/2018	\$ 29,187	(6.00)	(175,121)
23	12/1/2018	12/7/2018	\$ 13,498	(6.00)	(80,986)
24	12/8/2018	12/14/2018	\$ 27,411	(6.00)	(164,468)
25	12/15/2018	12/21/2018	\$ 11,870	(6.00)	(71,220)
26	12/22/2018	12/28/2018	\$ 18,289	(6.00)	(109,733)
27	12/29/2018	1/4/2019	\$ 12,504	(6.00)	(75,026)
28	1/5/2019	1/11/2019	\$ 31,837	(6.00)	(191,024)
29	1/12/2019	1/18/2019	\$ 13,868	(6.00)	(83,206)
30	1/19/2019	1/25/2019	\$ 32,689	(6.00)	(196,135)
31	1/26/2019	2/1/2019	\$ 19,863	(6.00)	(119,177)
32	2/2/2019	2/8/2019	\$ 36,614	(6.00)	(219,683)
33	2/9/2019	2/15/2019	\$ 13,620	(6.00)	(81,719)
34	2/16/2019	2/22/2019	\$ 32,921	(6.00)	(197,526)
35	2/23/2019	3/1/2019	\$ 13,991	(6.00)	(83,948)
36	3/2/2019	3/8/2019	\$ 34,032	(6.00)	(204,191)
37	3/9/2019	3/15/2019	\$ 13,621	(6.00)	(81,726)
38	3/16/2019	3/22/2019	\$ 32,572	(6.00)	(195,433)
39	3/23/2019	3/29/2019	\$ 13,949	(6.00)	(83,693)
40	3/30/2019	4/5/2019	\$ 32,750	(6.00)	(196,497)
41	4/6/2019	4/12/2019	\$ 14,631	(6.00)	(87,789)
42	4/6/2019	4/18/2019	\$ 85,182	(12.00)	(1,022,186)
43	4/13/2019	4/19/2019	\$ 32,120	(6.00)	(192,721)
44	4/20/2019	4/26/2019	\$ 13,429	(6.00)	(80,576)
45	4/27/2019	5/3/2019	\$ 32,845	(6.00)	(197,068)
46	5/4/2019	5/10/2019	\$ 13,978	(6.00)	(83,869)
47	5/11/2019	5/17/2019	\$ 31,460	(6.00)	(188,763)
48	5/18/2019	5/24/2019	\$ 13,723	(6.00)	(82,335)
49	5/25/2019	5/31/2019	\$ 32,796	(6.00)	(196,778)
50	6/1/2019	6/7/2019	\$ 13,109	(6.00)	(78,655)
51	6/8/2019	6/14/2019	\$ 32,162	(6.00)	(192,972)
52	6/15/2019	6/21/2019	\$ 13,345	(6.00)	(80,069)
53	6/22/2019	6/28/2019	\$ 32,552	(6.00)	(195,311)
Total			\$ 1,248,437	(6.41)	\$ (8,001,717)
54	Payroll Lag			(9.75)	
55	Total (Lead)/Lag Days			(16.16)	

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Lead-Lag Study
Federal Unemployment

Line	Description	Liability Date	Amount	Payment Date	(Lead)/Lag Days
1	Third Quarter	9/30/2018	\$ 257	10/31/2018	(31.00)
2	Fourth Quarter	12/31/2018	\$ 569	1/31/2019	(31.00)
3	First Quarter	3/31/2019	\$ 9,170	4/30/2019	(30.00)
4	Second Quarter	6/30/2019	\$ 467	7/31/2019	(31.00)
5	Total		\$ 10,463		(30.75)

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Lead-Lag Study
State Unemployment

Line	Pay-Period End	Payment Date	EN Amount	(Lead)/Lag Days	Dollar Days
1	6/30/2018	10/31/2018	\$ 56	(123.00)	\$ (6,860)
2	7/7/2018	10/31/2018	\$ 109	(116.00)	(12,618)
3	7/14/2018	10/31/2018	\$ 49	(109.00)	(5,317)
4	7/21/2018	10/31/2018	\$ 177	(102.00)	(18,017)
5	7/28/2018	10/31/2018	\$ 40	(95.00)	(3,773)
6	8/4/2018	10/31/2018	\$ 147	(88.00)	(12,936)
7	8/11/2018	10/31/2018	\$ 44	(81.00)	(3,586)
8	8/18/2018	10/31/2018	\$ 126	(74.00)	(9,345)
9	8/25/2018	10/31/2018	\$ 34	(67.00)	(2,247)
10	9/1/2018	10/31/2018	\$ 114	(60.00)	(6,850)
11	9/8/2018	10/31/2018	\$ 24	(53.00)	(1,247)
12	9/15/2018	10/31/2018	\$ 118	(46.00)	(5,431)
13	9/22/2018	10/31/2018	\$ 77	(39.00)	(3,011)
14	9/29/2018	1/31/2019	\$ 164	(124.00)	(20,316)
15	10/6/2018	1/31/2019	\$ 69	(117.00)	(8,048)
16	10/13/2018	1/31/2019	\$ 195	(110.00)	(21,444)
17	10/20/2018	1/31/2019	\$ 100	(103.00)	(10,297)
18	10/27/2018	1/31/2019	\$ 208	(96.00)	(19,961)
19	11/3/2018	1/31/2019	\$ 95	(89.00)	(8,466)
20	11/10/2018	1/31/2019	\$ 191	(82.00)	(15,664)
21	11/17/2018	1/31/2019	\$ 96	(75.00)	(7,179)
22	11/24/2018	1/31/2019	\$ 171	(68.00)	(11,608)
23	12/1/2018	1/31/2019	\$ 84	(61.00)	(5,123)
24	12/8/2018	1/31/2019	\$ 216	(54.00)	(11,665)
25	12/15/2018	1/31/2019	\$ (360)	(47.00)	16,921
26	12/22/2018	1/31/2019	\$ (95)	(40.00)	3,786
27	12/29/2018	4/30/2019	\$ 1,478	(122.00)	(180,335)
28	1/5/2019	4/30/2019	\$ 3,764	(115.00)	(432,863)
29	1/12/2019	4/30/2019	\$ 1,633	(108.00)	(176,359)
30	1/19/2019	4/30/2019	\$ 3,831	(101.00)	(386,980)
31	1/26/2019	4/30/2019	\$ 2,054	(94.00)	(193,091)

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Lead-Lag Study
State Unemployment

Line	Pay-Period End	Payment Date	EN Amount	(Lead)/Lag Days	Dollar Days
32	2/2/2019	4/30/2019	\$ 3,412	(87.00)	(296,820)
33	2/9/2019	4/30/2019	\$ 789	(80.00)	(63,157)
34	2/16/2019	4/30/2019	\$ 1,543	(73.00)	(112,643)
35	2/23/2019	4/30/2019	\$ 281	(66.00)	(18,549)
36	3/2/2019	4/30/2019	\$ 638	(59.00)	(37,630)
37	3/9/2019	4/30/2019	\$ 166	(52.00)	(8,616)
38	3/16/2019	4/30/2019	\$ 450	(45.00)	(20,252)
39	3/23/2019	4/30/2019	\$ 160	(38.00)	(6,079)
40	3/30/2019	7/31/2019	\$ 330	(123.00)	(40,601)
41	4/6/2019	7/31/2019	\$ 147	(116.00)	(17,079)
42	4/6/2019	7/31/2019	\$ 404	(116.00)	(46,894)
43	4/13/2019	7/31/2019	\$ 114	(109.00)	(12,390)
44	4/20/2019	7/31/2019	\$ 74	(102.00)	(7,538)
45	4/27/2019	7/31/2019	\$ 114	(95.00)	(10,863)
46	5/4/2019	7/31/2019	\$ 52	(88.00)	(4,597)
47	5/11/2019	7/31/2019	\$ 89	(81.00)	(7,242)
48	5/18/2019	7/31/2019	\$ 38	(74.00)	(2,831)
49	5/25/2019	7/31/2019	\$ 64	(67.00)	(4,297)
50	6/1/2019	7/31/2019	\$ 32	(60.00)	(1,924)
51	6/8/2019	7/31/2019	\$ 65	(53.00)	(3,471)
52	6/15/2019	7/31/2019	\$ 28	(46.00)	(1,283)
52	6/22/2019	7/31/2019	\$ 63	(39.00)	(2,472)
53	Total		\$ 24,063	(95.88)	\$ (2,307,159)
54	Payroll Lag			(9.75)	
55	Total (Lead)/Lag Days			(105.63)	

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Lead-Lag Study
Property Taxes

Line	Description	Tax Period Start	Tax Period End	Midpoint of Tax Period	Payment Date	Tax Amount	Days from Midpoint to End of Period	(Lead)/Lag Days Payment (Lead)/Lag Days	Total (Lead)/Lag Days	Weighted Dollar- Days	Composite (Lead)/Lag Days
1	TOWN OF ALLENSTOWN	4/1/2018	9/30/2018	7/1/2018	6/13/2018	32,703	(90.50)	109.00	18.50	\$ 605,006	
2	TOWN OF ALLENSTOWN	10/1/2018	3/31/2019	12/31/2018	11/19/2018	28,370	(90.00)	132.00	42.00	1,191,540	
3	TOWN OF AMHERST - TAX COLLECTOR	4/1/2018	9/30/2018	7/1/2018	6/13/2018	3,956	(90.50)	109.00	18.50	73,186	
4	TOWN OF AMHERST - TAX COLLECTOR	4/1/2018	9/30/2018	7/1/2018	6/13/2018	46,416	(90.50)	109.00	18.50	858,696	
5	TOWN OF AMHERST - TAX COLLECTOR	10/1/2018	3/31/2019	12/31/2018	11/19/2018	51,467	(90.00)	132.00	42.00	2,161,614	
6	TOWN OF AMHERST - TAX COLLECTOR	10/1/2018	3/31/2019	12/31/2018	11/19/2018	4,386	(90.00)	132.00	42.00	184,212	
7	TOWN OF AUBURN	4/1/2018	9/30/2018	7/1/2018	6/13/2018	717	(90.50)	109.00	18.50	13,265	
8	TOWN OF AUBURN	10/1/2018	3/31/2019	12/31/2018	11/29/2018	492	(90.00)	122.00	32.00	15,744	
9	TOWN OF BEDFORD NH	4/1/2018	9/30/2018	7/1/2018	6/6/2018	43,994	(90.50)	116.00	25.50	1,121,840	
10	TOWN OF BEDFORD NH	10/1/2018	3/31/2019	12/31/2018	11/19/2018	47,794	(90.00)	132.00	42.00	2,007,355	
11	TOWN OF BELMONT NH	4/1/2018	9/30/2018	7/1/2018	6/13/2018	21,061	(90.50)	109.00	18.50	389,621	
12	TOWN OF BELMONT NH	10/1/2018	3/31/2019	12/31/2018	11/19/2018	22,515	(90.00)	132.00	42.00	945,621	
13	CITY OF BERLIN	4/1/2018	9/30/2018	7/1/2018	6/6/2018	12,177	(90.50)	116.00	25.50	310,514	
14	CITY OF BERLIN	10/1/2018	3/31/2019	12/31/2018	2/5/2019	9,434	(90.00)	54.00	(36.00)	(339,624)	
15	TOWN OF BOSCAWEN	4/1/2018	9/30/2018	7/1/2018	6/6/2018	7,852	(90.50)	116.00	25.50	200,226	
16	TOWN OF BOSCAWEN	10/1/2018	3/31/2019	12/31/2018	11/19/2018	13,979	(90.00)	132.00	42.00	587,118	
17	TOWN OF BOW, NH	4/1/2018	9/30/2018	7/1/2018	6/13/2018	74,145	(90.50)	109.00	18.50	1,371,683	
18	TOWN OF BOW, NH	10/1/2018	3/31/2019	12/31/2018	12/11/2018	74,316	(90.00)	110.00	20.00	1,486,320	
19	TOWN OF CANTERBURY NH	4/1/2018	9/30/2018	7/1/2018	6/13/2018	3,058	(90.50)	109.00	18.50	56,573	
20	TOWN OF CANTERBURY NH	10/1/2018	3/31/2019	12/31/2018	12/3/2018	4,394	(90.00)	118.00	28.00	123,032	
21	CITY OF CONCORD, NH	7/1/2018	9/30/2018	8/16/2018	6/6/2018	1,904	(45.00)	116.00	71.00	135,184	
22	CITY OF CONCORD, NH	7/1/2018	9/30/2018	8/16/2018	6/6/2018	313	(45.00)	116.00	71.00	22,239	
23	CITY OF CONCORD, NH	7/1/2018	9/30/2018	8/16/2018	6/6/2018	25,444	(45.00)	116.00	71.00	1,806,531	
24	CITY OF CONCORD, NH	7/1/2018	9/30/2018	8/16/2018	6/6/2018	229	(45.00)	116.00	71.00	16,266	
25	CITY OF CONCORD, NH	7/1/2018	9/30/2018	8/16/2018	6/6/2018	1,320	(45.00)	116.00	71.00	93,745	
26	CITY OF CONCORD, NH	7/1/2018	9/30/2018	8/16/2018	6/6/2018	276,533	(45.00)	116.00	71.00	19,633,823	
27	CITY OF CONCORD, NH	7/1/2018	9/30/2018	8/16/2018	6/6/2018	599	(45.00)	116.00	71.00	42,532	
28	CITY OF CONCORD, NH	7/1/2018	9/30/2018	8/16/2018	6/6/2018	6,925	(45.00)	116.00	71.00	491,653	
29	CITY OF CONCORD, NH	7/1/2018	9/30/2018	8/16/2018	6/6/2018	8,448	(45.00)	116.00	71.00	599,809	
30	CITY OF CONCORD, NH	7/1/2018	9/30/2018	8/16/2018	6/6/2018	275	(45.00)	116.00	71.00	19,522	
31	CITY OF CONCORD, NH	7/1/2018	9/30/2018	8/16/2018	6/6/2018	337	(45.00)	116.00	71.00	23,896	
32	CITY OF CONCORD, NH	7/1/2018	9/30/2018	8/16/2018	6/6/2018	979	(45.00)	116.00	71.00	69,526	
33	CITY OF CONCORD, NH	7/1/2018	9/30/2018	8/16/2018	6/6/2018	617	(45.00)	116.00	71.00	43,788	
34	CITY OF CONCORD, NH	10/1/2018	12/31/2018	11/16/2018	9/19/2018	276,533	(45.00)	103.00	58.00	16,038,898	
35	CITY OF CONCORD, NH	10/1/2018	12/31/2018	11/16/2018	9/19/2018	979	(45.00)	103.00	58.00	56,795	
36	CITY OF CONCORD, NH	10/1/2018	12/31/2018	11/16/2018	9/19/2018	617	(45.00)	103.00	58.00	35,769	
37	CITY OF CONCORD, NH	10/1/2018	12/31/2018	11/16/2018	9/19/2018	337	(45.00)	103.00	58.00	19,522	
38	CITY OF CONCORD, NH	10/1/2018	12/31/2018	11/16/2018	9/19/2018	275	(45.00)	103.00	58.00	15,948	
39	CITY OF CONCORD, NH	10/1/2018	12/31/2018	11/16/2018	9/19/2018	8,448	(45.00)	103.00	58.00	489,984	
40	CITY OF CONCORD, NH	10/1/2018	12/31/2018	11/16/2018	9/19/2018	6,925	(45.00)	103.00	58.00	401,631	
41	CITY OF CONCORD, NH	10/1/2018	12/31/2018	11/16/2018	9/19/2018	599	(45.00)	103.00	58.00	34,745	
42	CITY OF CONCORD, NH	10/1/2018	12/31/2018	11/16/2018	9/19/2018	1,320	(45.00)	103.00	58.00	76,580	
43	CITY OF CONCORD, NH	10/1/2018	12/31/2018	11/16/2018	9/19/2018	229	(45.00)	103.00	58.00	13,288	
44	CITY OF CONCORD, NH	10/1/2018	12/31/2018	11/16/2018	9/19/2018	25,444	(45.00)	103.00	58.00	1,475,758	
45	CITY OF CONCORD, NH	10/1/2018	12/31/2018	11/16/2018	9/19/2018	313	(45.00)	103.00	58.00	18,168	
46	CITY OF CONCORD, NH	10/1/2018	12/31/2018	11/16/2018	9/19/2018	1,904	(45.00)	103.00	58.00	110,431	
47	CITY OF CONCORD, NH	1/1/2019	3/31/2019	2/15/2019	12/27/2018	227	(44.00)	94.00	50.00	11,362	
48	CITY OF CONCORD, NH	1/1/2019	3/31/2019	2/15/2019	12/27/2018	977	(44.00)	94.00	50.00	48,856	
49	CITY OF CONCORD, NH	1/1/2019	3/31/2019	2/15/2019	12/27/2018	622	(44.00)	94.00	50.00	31,098	
50	CITY OF CONCORD, NH	1/1/2019	3/31/2019	2/15/2019	12/27/2018	339	(44.00)	94.00	50.00	16,972	
51	CITY OF CONCORD, NH	1/1/2019	3/31/2019	2/15/2019	12/27/2018	603	(44.00)	94.00	50.00	30,164	
52	CITY OF CONCORD, NH	1/1/2019	3/31/2019	2/15/2019	12/27/2018	35,690	(44.00)	94.00	50.00	1,784,503	

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
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Line	Description	Tax Period Start	Tax Period End	Midpoint of Tax Period	Payment Date	Tax Amount	Days from Midpoint to End of Period	(Lead)/Lag Days Payment (Lead)/Lag Days	Total (Lead)/Lag Days	Weighted Dollar- Days	Composite (Lead)/Lag Days
53	CITY OF CONCORD, NH	1/1/2019	3/31/2019	2/15/2019	12/27/2018	362,571	(44.00)	94.00	50.00	18,128,573	
54	CITY OF CONCORD, NH	1/1/2019	3/31/2019	2/15/2019	12/27/2018	1,920	(44.00)	94.00	50.00	96,007	
55	CITY OF CONCORD, NH	1/1/2019	3/31/2019	2/15/2019	12/27/2018	8,520	(44.00)	94.00	50.00	425,983	
56	CITY OF CONCORD, NH	1/1/2019	3/31/2019	2/15/2019	12/27/2018	277	(44.00)	94.00	50.00	13,865	
57	CITY OF CONCORD, NH	1/1/2019	3/31/2019	2/15/2019	12/27/2018	316	(44.00)	94.00	50.00	15,795	
58	CITY OF CONCORD, NH	1/1/2019	3/31/2019	2/15/2019	12/27/2018	12	(44.00)	94.00	50.00	600	
59	CITY OF CONCORD, NH	1/1/2019	3/31/2019	2/15/2019	12/27/2018	6,983	(44.00)	94.00	50.00	349,171	
60	CITY OF CONCORD, NH	1/1/2019	3/31/2019	2/15/2019	12/27/2018	1,332	(44.00)	94.00	50.00	66,577	
61	CITY OF CONCORD, NH	4/1/2019	6/30/2019	5/16/2019	3/11/2019	227	(44.50)	111.00	66.50	15,110	
62	CITY OF CONCORD, NH	4/1/2019	6/30/2019	5/16/2019	3/11/2019	8,520	(44.50)	111.00	66.50	566,558	
63	CITY OF CONCORD, NH	4/1/2019	6/30/2019	5/16/2019	3/11/2019	1,332	(44.50)	111.00	66.50	88,548	
64	CITY OF CONCORD, NH	4/1/2019	6/30/2019	5/16/2019	3/11/2019	6,983	(44.50)	111.00	66.50	464,397	
65	CITY OF CONCORD, NH	4/1/2019	6/30/2019	5/16/2019	3/11/2019	977	(44.50)	111.00	66.50	64,978	
66	CITY OF CONCORD, NH	4/1/2019	6/30/2019	5/16/2019	3/11/2019	622	(44.50)	111.00	66.50	41,361	
67	CITY OF CONCORD, NH	4/1/2019	6/30/2019	5/16/2019	3/11/2019	339	(44.50)	111.00	66.50	22,571	
68	CITY OF CONCORD, NH	4/1/2019	6/30/2019	5/16/2019	3/11/2019	603	(44.50)	111.00	66.50	40,116	
69	CITY OF CONCORD, NH	4/1/2019	6/30/2019	5/16/2019	3/11/2019	35,690	(44.50)	111.00	66.50	2,373,387	
70	CITY OF CONCORD, NH	4/1/2019	6/30/2019	5/16/2019	3/11/2019	362,571	(44.50)	111.00	66.50	24,111,003	
71	CITY OF CONCORD, NH	4/1/2019	6/30/2019	5/16/2019	3/11/2019	1,920	(44.50)	111.00	66.50	127,690	
72	CITY OF CONCORD, NH	4/1/2019	6/30/2019	5/16/2019	3/11/2019	277	(44.50)	111.00	66.50	18,440	
73	CITY OF CONCORD, NH	4/1/2019	6/30/2019	5/16/2019	3/11/2019	316	(44.50)	111.00	66.50	21,005	
74	CITY OF CONCORD, NH	4/1/2019	6/30/2019	5/16/2019	3/11/2019	12	(44.50)	111.00	66.50	797	
75	TOWN OF DERRY	4/1/2018	9/30/2018	7/1/2018	6/13/2018	30,963	(90.50)	109.00	18.50	572,808	
76	TOWN OF DERRY	10/1/2018	3/31/2019	12/31/2018	12/3/2018	44,702	(90.00)	118.00	28.00	1,251,656	
77	CITY OF FRANKLIN NH	4/1/2018	9/30/2018	7/1/2018	6/6/2018	38,142	(90.50)	116.00	25.50	972,615	
78	CITY OF FRANKLIN NH	10/1/2018	3/31/2019	12/31/2018	12/20/2018	51,160	(90.00)	101.00	11.00	562,763	
79	TOWN OF GILFORD NH	4/1/2018	9/30/2018	7/1/2018	6/13/2018	49	(90.50)	109.00	18.50	907	
80	TOWN OF GILFORD NH	4/1/2018	9/30/2018	7/1/2018	6/13/2018	48	(90.50)	109.00	18.50	888	
81	TOWN OF GILFORD NH	4/1/2018	9/30/2018	7/1/2018	6/13/2018	48	(90.50)	109.00	18.50	888	
82	TOWN OF GILFORD NH	4/1/2018	9/30/2018	7/1/2018	6/13/2018	53	(90.50)	109.00	18.50	981	
83	TOWN OF GILFORD NH	4/1/2018	9/30/2018	7/1/2018	6/13/2018	3,359	(90.50)	109.00	18.50	62,142	
84	TOWN OF GILFORD NH	10/1/2018	3/31/2019	12/31/2018	11/29/2018	48	(90.00)	122.00	32.00	1,536	
85	TOWN OF GILFORD NH	10/1/2018	3/31/2019	12/31/2018	11/29/2018	47	(90.00)	122.00	32.00	1,504	
86	TOWN OF GILFORD NH	10/1/2018	3/31/2019	12/31/2018	11/29/2018	49	(90.00)	122.00	32.00	1,568	
87	TOWN OF GILFORD NH	10/1/2018	3/31/2019	12/31/2018	11/29/2018	50	(90.00)	122.00	32.00	1,600	
88	TOWN OF GILFORD NH	10/1/2018	3/31/2019	12/31/2018	11/29/2018	3,299	(90.00)	122.00	32.00	105,568	
89	TOWN OF GOFFSTOWN	4/1/2018	9/30/2018	7/1/2018	6/6/2018	21,505	(90.50)	116.00	25.50	548,378	
90	TOWN OF GOFFSTOWN	4/1/2018	9/30/2018	7/1/2018	6/6/2018	1,993	(90.50)	116.00	25.50	50,832	
91	TOWN OF GOFFSTOWN	10/1/2018	3/31/2019	12/31/2018	12/3/2018	2,069	(90.00)	118.00	28.00	57,921	
92	TOWN OF GOFFSTOWN	10/1/2018	3/31/2019	12/31/2018	12/3/2018	22,048	(90.00)	118.00	28.00	617,356	
93	TOWN OF HOLLIS	4/1/2018	9/30/2018	7/1/2018	6/13/2018	2,837	(90.50)	109.00	18.50	52,485	
94	TOWN OF HOLLIS	10/1/2018	3/31/2019	12/31/2018	11/19/2018	2,456	(90.00)	132.00	42.00	103,152	
95	TOWN OF HOOKSETT NH	4/1/2018	9/30/2018	7/1/2018	6/13/2018	145,680	(90.50)	109.00	18.50	2,695,080	
96	TOWN OF HOOKSETT NH	4/1/2018	9/30/2018	7/1/2018	6/13/2018	3,759	(90.50)	109.00	18.50	69,542	
97	TOWN OF HOOKSETT NH	10/1/2018	3/31/2019	12/31/2018	12/11/2018	150,612	(90.00)	110.00	20.00	3,012,240	
98	TOWN OF HOOKSETT NH	10/1/2018	3/31/2019	12/31/2018	12/11/2018	2,259	(90.00)	110.00	20.00	45,180	
99	TOWN OF HUDSON NH	4/1/2018	9/30/2018	7/1/2018	6/6/2018	772	(90.50)	116.00	25.50	19,680	
100	TOWN OF HUDSON NH	4/1/2018	9/30/2018	7/1/2018	6/6/2018	185,896	(90.50)	116.00	25.50	4,740,338	
101	TOWN OF HUDSON NH	4/1/2018	9/30/2018	7/1/2018	6/6/2018	737	(90.50)	116.00	25.50	18,782	
102	TOWN OF HUDSON NH	10/1/2018	3/31/2019	12/31/2018	11/19/2018	767	(90.00)	132.00	42.00	32,201	
103	TOWN OF HUDSON NH	10/1/2018	3/31/2019	12/31/2018	11/19/2018	803	(90.00)	132.00	42.00	33,740	
104	TOWN OF HUDSON NH	10/1/2018	3/31/2019	12/31/2018	11/19/2018	197,161	(90.00)	132.00	42.00	8,280,748	
105	CITY OF LACONIA	4/1/2018	9/30/2018	7/1/2018	6/13/2018	115,160	(90.50)	109.00	18.50	2,130,460	

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106	CITY OF LACONIA	10/1/2018	3/31/2019	12/31/2018	12/27/2018	123,874	(90.00)	94.00	4.00	495,496	
107	LITCHFIELD TAX COLLECTOR	4/1/2018	9/30/2018	7/1/2018	6/6/2018	10,458	(90.50)	116.00	25.50	266,679	
108	LITCHFIELD TAX COLLECTOR	10/1/2018	3/31/2019	12/31/2018	11/19/2018	11,326	(90.00)	132.00	42.00	475,692	
109	TOWN OF LONDONDERRY	4/1/2018	9/30/2018	7/1/2018	6/11/2018	226,393	(90.50)	111.00	20.50	4,641,057	
110	TOWN OF LONDONDERRY	4/1/2018	9/30/2018	7/1/2018	6/11/2018	19,747	(90.50)	111.00	20.50	404,814	
111	TOWN OF LONDONDERRY	10/1/2018	3/31/2019	12/31/2018	11/19/2018	216,647	(90.00)	132.00	42.00	9,099,174	
112	TOWN OF LONDONDERRY	10/1/2018	3/31/2019	12/31/2018	11/19/2018	20,052	(90.00)	132.00	42.00	842,163	
113	TOWN OF LOUDON NH	4/1/2018	9/30/2018	7/1/2018	6/21/2018	26,249	(90.50)	101.00	10.50	275,615	
114	TOWN OF LOUDON NH	10/1/2018	3/31/2019	12/31/2018	12/11/2018	198,918	(90.00)	110.00	20.00	3,978,360	
115	CITY OF MANCHESTER - OFFICE OF TAX COLLECTO	4/1/2018	9/30/2018	7/1/2018	6/21/2018	305	(90.50)	101.00	10.50	3,197	
116	CITY OF MANCHESTER - OFFICE OF TAX COLLECTO	4/1/2018	9/30/2018	7/1/2018	6/21/2018	520	(90.50)	101.00	10.50	5,457	
117	CITY OF MANCHESTER - OFFICE OF TAX COLLECTO	4/1/2018	9/30/2018	7/1/2018	6/21/2018	70	(90.50)	101.00	10.50	739	
118	CITY OF MANCHESTER - OFFICE OF TAX COLLECTO	4/1/2018	9/30/2018	7/1/2018	6/21/2018	22,437	(90.50)	101.00	10.50	235,593	
119	CITY OF MANCHESTER - OFFICE OF TAX COLLECTO	4/1/2018	9/30/2018	7/1/2018	6/30/2018	912,249	(90.50)	92.00	1.50	1,368,374	
120	CITY OF MANCHESTER - OFFICE OF TAX COLLECTO	10/1/2018	3/31/2019	12/31/2018	12/20/2018	1,074,129	(90.00)	101.00	11.00	11,815,415	
121	CITY OF MANCHESTER - OFFICE OF TAX COLLECTO	10/1/2018	3/31/2019	12/31/2018	12/20/2018	861	(90.00)	101.00	11.00	9,472	
122	CITY OF MANCHESTER - OFFICE OF TAX COLLECTO	10/1/2018	3/31/2019	12/31/2018	12/20/2018	23,271	(90.00)	101.00	11.00	255,979	
123	CITY OF MANCHESTER - OFFICE OF TAX COLLECTO	10/1/2018	3/31/2019	12/31/2018	12/20/2018	73	(90.00)	101.00	11.00	803	
124	CITY OF MANCHESTER - OFFICE OF TAX COLLECTO	10/1/2018	3/31/2019	12/31/2018	12/20/2018	316	(90.00)	101.00	11.00	3,474	
125	CITY OF MANCHESTER - OFFICE OF TAX COLLECTO	10/1/2018	3/31/2019	12/31/2018	12/20/2018	539	(90.00)	101.00	11.00	5,930	
126	TOWN OF MERRIMACK NH	4/1/2018	9/30/2018	7/1/2018	6/21/2018	174,721	(90.50)	101.00	10.50	1,834,571	
127	TOWN OF MERRIMACK NH	10/1/2018	3/31/2019	12/31/2018	11/19/2018	187,072	(90.00)	132.00	42.00	7,857,024	
128	TOWN OF MILFORD	4/1/2018	9/30/2018	7/1/2018	6/13/2018	52,827	(90.50)	109.00	18.50	977,291	
129	TOWN OF MILFORD	4/1/2018	9/30/2018	7/1/2018	6/13/2018	888	(90.50)	109.00	18.50	16,425	
130	TOWN OF MILFORD	10/1/2018	3/31/2019	12/31/2018	11/19/2018	57,663	(90.00)	132.00	42.00	2,421,840	
131	TOWN OF MILFORD	10/1/2018	3/31/2019	12/31/2018	11/19/2018	881	(90.00)	132.00	42.00	36,987	
132	CITY OF NASHUA NH	4/1/2018	9/30/2018	7/1/2018	6/6/2018	25,790	(90.50)	116.00	25.50	657,645	
133	CITY OF NASHUA NH	4/1/2018	9/30/2018	7/1/2018	6/6/2018	675,467	(90.50)	116.00	25.50	17,224,421	
134	CITY OF NASHUA NH	4/1/2018	9/30/2018	7/1/2018	6/6/2018	201	(90.50)	116.00	25.50	5,122	
135	CITY OF NASHUA NH	4/1/2018	9/30/2018	7/1/2018	6/6/2018	125	(90.50)	116.00	25.50	3,197	
136	CITY OF NASHUA NH	4/1/2018	9/30/2018	7/1/2018	6/6/2018	1,902	(90.50)	116.00	25.50	48,494	
137	CITY OF NASHUA NH	10/1/2018	3/31/2019	12/31/2018	11/29/2018	99,332	(90.00)	122.00	32.00	3,178,625	
138	CITY OF NASHUA NH	10/1/2018	3/31/2019	12/31/2018	11/29/2018	51	(90.00)	122.00	32.00	1,625	
139	CITY OF NASHUA NH	10/1/2018	3/31/2019	12/31/2018	11/29/2018	77	(90.00)	122.00	32.00	2,459	
140	CITY OF NASHUA NH	10/1/2018	3/31/2019	12/31/2018	11/29/2018	3,451	(90.00)	122.00	32.00	110,423	
141	CITY OF NASHUA NH	10/1/2018	3/31/2019	12/31/2018	12/11/2018	1,569,990	(90.00)	110.00	20.00	31,399,809	
142	STATE OF NH - DEPARTMENT OF REVENUE	1/1/2018	3/31/2018	2/15/2018	3/27/2018	521,344	(44.00)	4.00	(40.00)	(20,853,760)	
143	STATE OF NH - DEPARTMENT OF REVENUE	4/1/2018	6/30/2018	5/16/2018	6/6/2018	521,344	(44.50)	24.00	(20.50)	(10,687,552)	
144	STATE OF NH - DEPARTMENT OF REVENUE	7/1/2018	9/30/2018	8/16/2018	9/5/2018	521,345	(45.00)	25.00	(20.00)	(10,426,890)	
145	STATE OF NH - DEPARTMENT OF REVENUE	10/1/2018	12/31/2018	11/16/2018	11/27/2018	521,344	(45.00)	34.00	(11.00)	(5,734,784)	
146	STATE OF NH - DEPARTMENT OF REVENUE	1/1/2018	12/31/2018	7/2/2018	12/31/2018	334,891	(181.50)	-	(181.50)	(60,782,717)	
147	TOWN OF NORTHFIELD - TAX	4/1/2018	9/30/2018	7/1/2018	6/11/2018	33,153	(90.50)	111.00	20.50	679,637	
148	TOWN OF NORTHFIELD - TAX	10/1/2018	3/31/2019	12/31/2018	11/19/2018	34,796	(90.00)	132.00	42.00	1,461,432	
149	TOWN OF PEMBROKE	4/1/2018	9/30/2018	7/1/2018	6/11/2018	77,400	(90.50)	111.00	20.50	1,586,700	
150	TOWN OF PEMBROKE	10/1/2018	3/31/2019	12/31/2018	11/19/2018	57,265	(90.00)	132.00	42.00	2,405,130	
151	TOWN OF SANBORNTON - TAX COLLECTOR	4/1/2018	9/30/2018	7/1/2018	6/21/2018	507	(90.50)	101.00	10.50	5,324	
152	TOWN OF SANBORNTON - TAX COLLECTOR	10/1/2018	3/31/2019	12/31/2018	12/27/2018	1,803	(90.00)	94.00	4.00	7,212	
153	TOWN OF TILTON, NH	4/1/2018	9/30/2018	7/1/2018	6/6/2018	105,330	(90.50)	116.00	25.50	2,685,915	
154	TOWN OF TILTON, NH	4/1/2018	9/30/2018	7/1/2018	6/6/2018	12,534	(90.50)	116.00	25.50	319,617	
155	TOWN OF TILTON, NH	10/1/2018	3/31/2019	12/31/2018	12/3/2018	13,659	(90.00)	118.00	28.00	382,452	
156	TOWN OF TILTON, NH	10/1/2018	3/31/2019	12/31/2018	12/11/2018	114,780	(90.00)	110.00	20.00	2,295,600	

\$ 11,630,746

\$ 133,473,347

11.48