

Liberty Utilities - Missouri Water
Lead-Lag Study Ending December 31, 2022
Revenue and Collection Lag

Line	Description	Revenue Lag	Reference
1	Service Lag	15.21	
2	Billing Lag	4.14	A-1
3	Collection Lag	31.06	A-2
4	<u>Composite Revenue Lag</u>	<u>50.41</u>	

Liberty Utilities - Missouri Water
Lead-Lag Study Ending December 31, 2022
O&M Expenses

Line	Description	(Lead)/Lag Days	Reference
1	<u>Operation and Maintenance Expenses</u>		
2	O&M, Labor	(12.96)	B-1
3	Incentive Compensation	(292.29)	B-2
4	401k	2.04	B-3
5	Pension Expense	(54.00)	B-4
6	OPEB	(240.50)	B-5
7	Benefits	(29.37)	B-6
8	Uncollectibles	0.00	
9	O&M, Other Non-Labor	(20.74)	B-7
10	<u>Total O&M Expenses</u>		

Liberty Utilities - Missouri Water
 Lead-Lag Study Ending December 31, 2022
 Federal Income Taxes

(Lead)/Lag Days

Line	Description	Service Period Start	Service Period End	Midpoint of Service Period	Payment Date	Percent of Taxes Due	Midpoint to Payment Date	(Lead)/Lag Days
1	First Quarter	1/1/2022	12/31/2022	(182.50)	4/15/2022	25.00%	77.50	19.38
2	Second Quarter	1/1/2022	12/31/2022	(182.50)	6/15/2022	25.00%	16.50	4.13
3	Third Quarter	1/1/2022	12/31/2022	(182.50)	9/15/2022	25.00%	(75.50)	(18.88)
4	Fourth Quarter	1/1/2022	12/31/2022	(182.50)	12/15/2022	25.00%	(166.50)	(41.63)
5	Federal Income Tax (Lead)/Lag Days							(37.00)

Liberty Utilities - Missouri Water
 Lead-Lag Study Ending December 31, 2022
 State Income Taxes

(Lead)/Lag Days

Line	Description	Service Period Start	Service Period End	Midpoint of Service Period	Payment Date	Percent of Taxes Due	Midpoint to Payment Date	(Lead)/Lag Days
1	First Quarter	1/1/2022	12/31/2022	(182.50)	4/15/2022	25.00%	77.50	19.38
2	Second Quarter	1/1/2022	12/31/2022	(182.50)	6/15/2022	25.00%	16.50	4.13
3	Third Quarter	1/1/2022	12/31/2022	(182.50)	9/15/2022	25.00%	(75.50)	(18.88)
4	Fourth Quarter	1/1/2022	12/31/2022	(182.50)	12/15/2022	25.00%	(166.50)	(41.63)
5	<u>State Income Tax (Lead)/Lag Days</u>							<u>(37.00)</u>

Liberty Utilities - Missouri Water
Lead-Lag Study Ending December 31, 2022
Taxes Other Than Income Taxes

Schedule TSL-3 (Tab D)

Line	Description	Expense	(Lead)/Lag Days	Reference	Dollar Days
1	Payroll Taxes				
2	FICA	\$ 14,243,304	(11.96)	D-1	\$ (170,327,568)
3	Federal Unemployment	90,146	(75.29)	D-2	(6,787,268)
4	Ad Valorem	\$ 324,036	(167.79)	D-3	\$ (54,370,163)
5	PSC Assessment	155,843	(14.13)	D-4	(2,202,085)

Liberty Utilities - Missouri Water
 Lead-Lag Study Ending December 31, 2022
 Interest Expense Payment

Line	Description	Service Period Begin	Service Period End	Midpoint of Service Period	Payment Date	Amount	Lead-Lag Days	Dollar-Days	Composite Lead-Lag Days
1	Internal Transfer	01/30/22	07/30/22	(91.00)	7/29/2022	\$ 1,216,960	(90.00)	\$ (109,526,400)	
2	Internal Transfer	08/01/22	01/30/23	(91.50)	1/31/2023	1,216,960	(92.50)	(112,568,800)	
3	Total					\$ 2,433,920		\$ (222,095,200)	(91.25)