

Appendix H

Greenhouse Gas Emissions Calculations

GHG Emissions - Annual Summary

Year	ConEquip	ConTrips	OpsTrips	Total	MTCO2e	Constructio
2018	205.3	584.1	65.6	854.9		789.3
2023	218.0	579.5	54.8	852.3		797.5
2028	250.1	633.3	46.9	930.4		883.4
2033	302.8	658.8	42.4	1004.0		961.6
2038	346.5	707.4	40.0	1093.8		1053.8
2043	394.2	735.0	38.9	1168.2		1129.3

Construction Equipment Emissions - Annual GHG Emissions

ProgramYear	Scenario	Phase ID	Phase Name	Daily GHG Emissions (1 Site)		Annual GHG Emissions		
				CO2 (lb/day)	CH4 (lb/day)	CO2 lb/year	CH4 lb/year	MTCO2e/year
2018		1 1A	Mobilization	0.000	0.000	-	-	0.00
2018		1 1A	Mobilization	59.337	0.006	84,851.4	9.1	38.63
2018		1 1A	MobilizationTotal					38.63
2018		1 1B	TrafficControl/Demo/Removal	0.000	0.000	-	-	0.00
2018		1 1B	TrafficControl/Demo/Removal	29.267	0.003	8,370.5	0.9	3.81
2018		1 1B	TrafficControl/Demo/Removal	87.543	0.027	25,037.3	7.8	11.48
2018		1 1B	TrafficControl/Demo/Removal	20.116	0.006	5,753.3	1.8	2.64
2018		1 1B	TrafficControl/Demo/RemovalTotal					17.9
2018		1 1C	Grading/Formwork	33.638	0.010	9,620.4	3.0	4.41
2018		1 1C	Grading/FormworkTotal					4.4
2018		1 1D	ConcretePouring	84.194	0.010	24,079.5	2.8	10.97
2018		1 1D	ConcretePouring	0.000	0.000	-	-	0.00
2018		1 1D	ConcretePouringTotal					11.0
2018		1 1E	UtilityAdjustment	84.722	0.026	48,460.8	14.9	22.21
2018		1 1E	UtilityAdjustment	148.166	0.011	84,751.1	6.6	38.54
2018		1 1E	UtilityAdjustment	8.419	0.001	4,815.9	0.5	2.19
2018		1 1E	UtilityAdjustmentTotal					62.9
2018		1 1F	TreeRemoval	241.318	0.075	69,017.0	21.5	31.64
2018		1 1F	TreeRemoval	26.018	0.279	7,441.2	79.8	4.61
2018		1 1F	TreeRemoval	4.696	0.004	1,343.0	1.1	0.63
2018		1 1F	TreeRemoval	27.001	0.024	7,722.4	6.8	3.61
2018		1 1F	TreeRemoval	41.092	0.013	11,752.2	3.6	5.39
2018		1 1F	TreeRemovalTotal					45.9
2018		1 1G	TreePlanting	15.534	0.005	4,442.6	1.4	2.04
2018		1 1G	TreePlantingTotal					2.0
2018		2 2A	Mobilization	0.000	0.000	-	-	0.00
2018		2 2A	Mobilization	59.337	0.006	3,560.2	0.4	1.62
2018		2 2A	MobilizationTotal					1.6
2018		2 2B	TrafficControl/Demo/Removal	0.000	0.000	-	-	0.00
2018		2 2B	TrafficControl/Demo/Removal	29.267	0.003	351.2	0.0	0.16
2018		2 2B	TrafficControl/Demo/Removal	87.543	0.027	1,050.5	0.3	0.48
2018		2 2B	TrafficControl/Demo/Removal	20.116	0.006	241.4	0.1	0.1
2018		2 2B	TrafficControl/Demo/RemovalTotal					0.8
2018		2 2C	Grading/Formwork	33.638	0.010	403.7	0.1	0.2
2018		2 2C	Grading/FormworkTotal					0.2
2018		2 2D	ConcretePouring	84.194	0.010	1,010.3	0.1	0.5
2018		2 2D	ConcretePouring	0.000	0.000	-	-	0.0
2018		2 2D	ConcretePouringTotal					0.5
2018		2 2E	UtilitiesRelocation	296.333	0.023	71,119.8	5.5	32.3
2018		2 2E	UtilitiesRelocation	860.473	0.267	206,513.6	64.2	94.5
2018		2 2E	UtilitiesRelocation	6.465	0.001	1,551.6	0.2	0.7
2018		2 2E	UtilitiesRelocation	46.604	0.014	11,184.9	3.5	5.1
2018		2 2E	UtilitiesRelocationTotal					132.6
2018		2 2F	CrosswalkRepaving	58.535	0.006	1,404.8	0.2	0.6
2018		2 2F	CrosswalkRepaving	43.772	0.014	1,050.5	0.3	0.5
2018		2 2F	CrosswalkRepaving	46.604	0.014	559.2	0.2	0.3
2018		2 2F	CrosswalkRepaving	7.217	0.001	86.6	0.0	0.0
2018		2 2F	CrosswalkRepavingTotal					1.4
2018		2 2G	TreeRemoval	241.318	0.075	2,895.8	0.9	1.3
2018		2 2G	TreeRemoval	26.018	0.279	312.2	3.3	0.2
2018		2 2G	TreeRemoval	4.696	0.004	56.4	0.0	0.0
2018		2 2G	TreeRemoval	27.001	0.024	324.0	0.3	0.2
2018		2 2G	TreeRemoval	41.092	0.013	493.1	0.2	0.2
2018		2 2G	TreeRemovalTotal					1.9
2018		2 2H	TreePlanting	15.534	0.005	186.4	0.1	0.1
2018		2 2H	TreePlantingTotal					0.1
2023		1 1A	Mobilization	0.000	0.000	-	-	0.00
2023		1 1A	Mobilization	59.337	0.006	98,498.9	9.5	44.83
2023		1 1A	MobilizationTotal					44.83
2023		1 1B	TrafficControl/Demo/Removal	0.000	0.000	-	-	0.00
2023		1 1B	TrafficControl/Demo/Removal	29.267	0.003	9,716.8	1.0	4.42
2023		1 1B	TrafficControl/Demo/Removal	84.324	0.027	27,995.6	9.1	12.84
2023		1 1B	TrafficControl/Demo/Removal	19.279	0.006	6,400.6	2.1	2.94
2023		1 1B	TrafficControl/Demo/RemovalTotal					20.2
2023		1 1C	Grading/Formwork	32.380	0.010	10,750.2	3.5	4.93
2023		1 1C	Grading/FormworkTotal					4.9
2023		1 1D	ConcretePouring	84.194	0.009	27,952.4	3.0	12.73
2023		1 1D	ConcretePouring	0.000	0.000	-	-	0.00
2023		1 1D	ConcretePouringTotal					12.7

Construction Equipment Emissions - Annual GHG Emissions

ProgramYear	Scenario	Phase ID	Phase Name	Daily GHG Emissions (1 Site)		Annual GHG Emissions		
				CO2 (lb/day)	CH4 (lb/day)	CO2 lb/year	CH4 lb/year	MTCO2e/year
2023		1 1E	UtilityAdjustment	40.532	0.013	26,913.1	8.7	12.34
2023		1 1E	UtilityAdjustment	148.167	0.007	98,382.6	4.8	44.70
2023		1 1E	UtilityAdjustment	8.419	0.001	5,590.5	0.6	2.54
2023		1 1E	UtilityAdjustmentTotal					59.6
2023		1 1F	TreeRemoval	232.285	0.075	77,118.6	25.0	35.37
2023		1 1F	TreeRemoval	26.018	0.277	8,638.0	91.9	5.34
2023		1 1F	TreeRemoval	4.696	0.004	1,559.0	1.3	0.73
2023		1 1F	TreeRemoval	27.001	0.023	8,964.5	7.7	4.18
2023		1 1F	TreeRemoval	39.581	0.013	13,140.8	4.3	6.03
2023		1 1F	TreeRemovalTotal					51.6
2023		1 1G	TreePlanting	14.966	0.005	4,968.8	1.6	2.28
2023		1 1G	TreePlantingTotal					2.3
2023		2 2A	Mobilization	0.000	0.000	-	-	0.00
2023		2 2A	Mobilization	59.337	0.006	3,560.2	0.3	1.62
2023		2 2A	MobilizationTotal					1.6
2023		2 2B	TrafficControl/Demo/Removal	0.000	0.000	-	-	0.00
2023		2 2B	TrafficControl/Demo/Removal	29.267	0.003	351.2	0.0	0.16
2023		2 2B	TrafficControl/Demo/Removal	84.324	0.027	1,011.9	0.3	0.46
2023		2 2B	TrafficControl/Demo/Removal	19.279	0.006	231.3	0.1	0.1
2023		2 2B	TrafficControl/Demo/RemovalTotal					0.7
2023		2 2C	Grading/Formwork	32.380	0.010	388.6	0.1	0.2
2023		2 2C	Grading/FormworkTotal					0.2
2023		2 2D	ConcretePouring	84.194	0.009	1,010.3	0.1	0.5
2023		2 2D	ConcretePouring	0.000	0.000	-	-	0.0
2023		2 2D	ConcretePouringTotal					0.5
2023		2 2E	UtilitiesRelocation	296.333	0.015	71,119.9	3.5	32.3
2023		2 2E	UtilitiesRelocation	826.672	0.267	198,401.2	64.2	90.8
2023		2 2E	UtilitiesRelocation	6.465	0.001	1,551.6	0.2	0.7
2023		2 2E	UtilitiesRelocation	44.881	0.014	10,771.5	3.5	4.9
2023		2 2E	UtilitiesRelocationTotal					128.7
2023		2 2F	CrosswalkRepaving	58.535	0.006	1,404.8	0.2	0.6
2023		2 2F	CrosswalkRepaving	42.162	0.014	1,011.9	0.3	0.5
2023		2 2F	CrosswalkRepaving	44.881	0.014	538.6	0.2	0.2
2023		2 2F	CrosswalkRepaving	7.217	0.001	86.6	0.0	0.0
2023		2 2F	CrosswalkRepavingTotal					1.4
2023		2 2G	TreeRemoval	232.285	0.075	2,787.4	0.9	1.3
2023		2 2G	TreeRemoval	26.018	0.277	312.2	3.3	0.2
2023		2 2G	TreeRemoval	4.696	0.004	56.4	0.0	0.0
2023		2 2G	TreeRemoval	27.001	0.023	324.0	0.3	0.2
2023		2 2G	TreeRemoval	39.581	0.013	475.0	0.2	0.2
2023		2 2G	TreeRemovalTotal					1.9
2023		2 2H	TreePlanting	14.966	0.005	179.6	0.1	0.1
2023		2 2H	TreePlantingTotal					0.1
2028		1 1A	Mobilization	0.000	0.000	-	-	0.00
2028		1 1A	Mobilization	59.337	0.006	113,926.4	10.8	51.84
2028		1 1A	MobilizationTotal					51.84
2028		1 1B	TrafficControl/Demo/Removal	0.000	0.000	-	-	0.00
2028		1 1B	TrafficControl/Demo/Removal	29.267	0.003	11,238.7	1.2	5.12
2028		1 1B	TrafficControl/Demo/Removal	84.394	0.027	32,407.3	10.5	14.86
2028		1 1B	TrafficControl/Demo/Removal	19.279	0.006	7,403.2	2.4	3.39
2028		1 1B	TrafficControl/Demo/RemovalTotal					23.4
2028		1 1C	Grading/Formwork	32.397	0.010	12,440.5	4.0	5.70
2028		1 1C	Grading/FormworkTotal					5.7
2028		1 1D	ConcretePouring	84.194	0.009	32,330.5	3.5	14.72
2028		1 1D	ConcretePouring	0.000	0.000	-	-	0.00
2028		1 1D	ConcretePouringTotal					14.7
2028		1 1E	UtilityAdjustment	40.523	0.013	31,121.5	10.1	14.27
2028		1 1E	UtilityAdjustment	148.167	0.007	113,791.9	5.0	51.69
2028		1 1E	UtilityAdjustment	8.419	0.001	6,466.1	0.7	2.94
2028		1 1E	UtilityAdjustmentTotal					68.9
2028		1 1F	TreeRemoval	232.285	0.075	89,197.4	28.9	40.91
2028		1 1F	TreeRemoval	26.018	0.276	9,991.0	106.1	6.17
2028		1 1F	TreeRemoval	4.696	0.004	1,803.2	1.5	0.84
2028		1 1F	TreeRemoval	27.001	0.023	10,368.5	8.8	4.84
2028		1 1F	TreeRemoval	39.614	0.013	15,211.6	4.9	6.98
2028		1 1F	TreeRemovalTotal					59.7
2028		1 1G	TreePlanting	22.464	0.007	8,626.2	2.8	3.96
2028		1 1G	TreePlantingTotal					4.0

Construction Equipment Emissions - Annual GHG Emissions

ProgramYear	Scenario	Phase ID	Phase Name	Daily GHG Emissions (1 Site)		Annual GHG Emissions		
				CO2 (lb/day)	CH4 (lb/day)	CO2 lb/year	CH4 lb/year	MTCO2e/year
2028		2 2A	Mobilization	0.000	0.000	-	-	0.00
2028		2 2A	Mobilization	59.337	0.006	3,560.2	0.3	1.62
2028		2 2A	MobilizationTotal					1.6
2028		2 2B	TrafficControl/Demo/Removal	0.000	0.000	-	-	0.00
2028		2 2B	TrafficControl/Demo/Removal	29.267	0.003	351.2	0.0	0.16
2028		2 2B	TrafficControl/Demo/Removal	84.394	0.027	1,012.7	0.3	0.46
2028		2 2B	TrafficControl/Demo/Removal	19.279	0.006	231.4	0.1	0.1
2028		2 2B	TrafficControl/Demo/RemovalTotal					0.7
2028		2 2C	Grading/Formwork	32.397	0.010	388.8	0.1	0.2
2028		2 2C	Grading/FormworkTotal					0.2
2028		2 2D	ConcretePouring	84.194	0.009	1,010.3	0.1	0.5
2028		2 2D	ConcretePouring	0.000	0.000	-	-	0.0
2028		2 2D	ConcretePouringTotal					0.5
2028		2 2E	UtilitiesRelocation	296.333	0.013	71,119.9	3.1	32.3
2028		2 2E	UtilitiesRelocation	827.379	0.267	198,571.0	64.2	90.9
2028		2 2E	UtilitiesRelocation	6.465	0.001	1,551.6	0.2	0.7
2028		2 2E	UtilitiesRelocation	44.881	0.014	10,771.4	3.5	4.9
2028		2 2E	UtilitiesRelocationTotal					128.8
2028		2 2F	CrosswalkRepaving	58.535	0.006	1,404.8	0.2	0.6
2028		2 2F	CrosswalkRepaving	42.197	0.014	1,012.7	0.3	0.5
2028		2 2F	CrosswalkRepaving	44.881	0.014	538.6	0.2	0.2
2028		2 2F	CrosswalkRepaving	7.217	0.001	86.6	0.0	0.0
2028		2 2F	CrosswalkRepavingTotal					1.4
2028		2 2G	TreeRemoval	232.285	0.075	2,787.4	0.9	1.3
2028		2 2G	TreeRemoval	26.018	0.276	312.2	3.3	0.2
2028		2 2G	TreeRemoval	4.696	0.004	56.4	0.0	0.0
2028		2 2G	TreeRemoval	27.001	0.023	324.0	0.3	0.2
2028		2 2G	TreeRemoval	39.614	0.013	475.4	0.2	0.2
2028		2 2G	TreeRemovalTotal					1.9
2028		2 2H	TreePlanting	22.464	0.007	269.6	0.1	0.1
2028		2 2H	TreePlantingTotal					0.1
2033		1 1A	Mobilization	0.000	0.000	-	-	0.00
2033		1 1A	Mobilization	59.337	0.006	132,024.1	12.3	60.08
2033		1 1A	MobilizationTotal					60.08
2033		1 1B	TrafficControl/Demo/Removal	0.000	0.000	-	-	0.00
2033		1 1B	TrafficControl/Demo/Removal	29.267	0.003	13,024.0	1.4	5.93
2033		1 1B	TrafficControl/Demo/Removal	90.859	0.006	40,432.4	2.6	18.38
2033		1 1B	TrafficControl/Demo/Removal	21.324	0.002	9,489.2	1.0	4.32
2033		1 1B	TrafficControl/Demo/RemovalTotal					28.6
2033		1 1C	Grading/Formwork	34.993	0.003	15,571.9	1.5	7.09
2033		1 1C	Grading/FormworkTotal					7.1
2033		1 1D	ConcretePouring	84.194	0.009	37,466.3	4.0	17.06
2033		1 1D	ConcretePouring	0.000	0.000	-	-	0.00
2033		1 1D	ConcretePouringTotal					17.1
2033		1 1E	UtilityAdjustment	44.202	0.006	39,339.6	5.0	17.92
2033		1 1E	UtilityAdjustment	148.166	0.005	131,868.0	4.4	59.88
2033		1 1E	UtilityAdjustment	8.419	0.001	7,493.3	0.8	3.41
2033		1 1E	UtilityAdjustmentTotal					81.2
2033		1 1F	TreeRemoval	279.644	0.005	124,441.6	2.4	56.48
2033		1 1F	TreeRemoval	26.018	0.276	11,578.1	122.8	7.15
2033		1 1F	TreeRemoval	4.696	0.004	2,089.7	1.7	0.97
2033		1 1F	TreeRemoval	27.001	0.023	12,015.6	10.1	5.61
2033		1 1F	TreeRemoval	42.648	0.003	18,978.5	1.2	8.63
2033		1 1F	TreeRemovalTotal					78.8
2033		1 1G	TreePlanting	24.281	0.003	10,805.0	1.2	4.92
2033		1 1G	TreePlantingTotal					4.9
2033		2 2A	Mobilization	0.000	0.000	-	-	0.00
2033		2 2A	Mobilization	59.337	0.006	3,560.2	0.3	1.62
2033		2 2A	MobilizationTotal					1.6
2033		2 2B	TrafficControl/Demo/Removal	0.000	0.000	-	-	0.00
2033		2 2B	TrafficControl/Demo/Removal	29.267	0.003	351.2	0.0	0.16
2033		2 2B	TrafficControl/Demo/Removal	90.859	0.006	1,090.3	0.1	0.50
2033		2 2B	TrafficControl/Demo/Removal	21.324	0.002	255.9	0.0	0.1
2033		2 2B	TrafficControl/Demo/RemovalTotal					0.8
2033		2 2C	Grading/Formwork	34.993	0.003	419.9	0.0	0.2
2033		2 2C	Grading/FormworkTotal					0.2
2033		2 2D	ConcretePouring	84.194	0.009	1,010.3	0.1	0.5
2033		2 2D	ConcretePouring	0.000	0.000	-	-	0.0
2033		2 2D	ConcretePouringTotal					0.5

Construction Equipment Emissions - Annual GHG Emissions

ProgramYear	Scenario	Phase ID	Phase Name	Daily GHG Emissions (1 Site)		Annual GHG Emissions		
				CO2 (lb/day)	CH4 (lb/day)	CO2 lb/year	CH4 lb/year	MTCO2e/year
2033		2 2E	UtilitiesRelocation	296.333	0.010	71,119.8	2.4	32.3
2033		2 2E	UtilitiesRelocation	999.803	0.032	239,952.7	7.6	108.9
2033		2 2E	UtilitiesRelocation	6.465	0.001	1,551.6	0.2	0.7
2033		2 2E	UtilitiesRelocation	48.412	0.006	11,618.8	1.6	5.3
2033		2 2E	UtilitiesRelocationTotal					147.2
2033		2 2F	CrosswalkRepaving	58.535	0.006	1,404.8	0.2	0.6
2033		2 2F	CrosswalkRepaving	45.430	0.003	1,090.3	0.1	0.5
2033		2 2F	CrosswalkRepaving	48.412	0.006	580.9	0.1	0.3
2033		2 2F	CrosswalkRepaving	7.217	0.001	86.6	0.0	0.0
2033		2 2F	CrosswalkRepavingTotal					1.4
2033		2 2G	TreeRemoval	279.644	0.005	3,355.7	0.1	1.5
2033		2 2G	TreeRemoval	26.018	0.276	312.2	3.3	0.2
2033		2 2G	TreeRemoval	4.696	0.004	56.4	0.0	0.0
2033		2 2G	TreeRemoval	27.001	0.023	324.0	0.3	0.2
2033		2 2G	TreeRemoval	42.648	0.003	511.8	0.0	0.2
2033		2 2G	TreeRemovalTotal					2.1
2033		2 2H	TreePlanting	24.281	0.003	291.4	0.0	0.1
2033		2 2H	TreePlantingTotal					0.1
2038		1 1A	Mobilization	0.000	0.000	-	-	0.00
2038		1 1A	Mobilization	59.337	0.006	152,791.9	14.2	69.53
2038		1 1A	MobilizationTotal					69.53
2038		1 1B	TrafficControl/Demo/Removal	0.000	0.000	-	-	0.00
2038		1 1B	TrafficControl/Demo/Removal	29.267	0.003	15,072.7	1.6	6.86
2038		1 1B	TrafficControl/Demo/Removal	90.859	0.006	46,792.5	3.0	21.27
2038		1 1B	TrafficControl/Demo/Removal	21.324	0.002	10,981.9	1.2	5.00
2038		1 1B	TrafficControl/Demo/RemovalTotal					33.1
2038		1 1C	Grading/Formwork	34.993	0.003	18,021.4	1.4	8.20
2038		1 1C	Grading/FormworkTotal					8.2
2038		1 1D	ConcretePouring	84.194	0.009	43,359.9	4.7	19.74
2038		1 1D	ConcretePouring	0.000	0.000	-	-	0.00
2038		1 1D	ConcretePouringTotal					19.7
2038		1 1E	UtilityAdjustment	44.202	0.005	45,527.9	4.7	20.72
2038		1 1E	UtilityAdjustment	148.166	0.005	152,611.3	4.8	69.30
2038		1 1E	UtilityAdjustment	8.419	0.001	8,672.0	0.9	3.95
2038		1 1E	UtilityAdjustmentTotal					94.0
2038		1 1F	TreeRemoval	279.644	0.005	144,016.7	2.5	65.36
2038		1 1F	TreeRemoval	26.018	0.276	13,399.4	142.1	8.27
2038		1 1F	TreeRemoval	4.696	0.004	2,418.4	1.9	1.13
2038		1 1F	TreeRemoval	27.001	0.023	13,905.7	11.7	6.49
2038		1 1F	TreeRemoval	42.648	0.003	21,963.8	1.4	9.98
2038		1 1F	TreeRemovalTotal					91.2
2038		1 1G	TreePlanting	24.281	0.003	12,504.7	1.3	5.69
2038		1 1G	TreePlantingTotal					5.7
2038		2 2A	Mobilization	0.000	0.000	-	-	0.00
2038		2 2A	Mobilization	59.337	0.006	3,560.2	0.3	1.62
2038		2 2A	MobilizationTotal					1.6
2038		2 2B	TrafficControl/Demo/Removal	0.000	0.000	-	-	0.00
2038		2 2B	TrafficControl/Demo/Removal	29.267	0.003	351.2	0.0	0.16
2038		2 2B	TrafficControl/Demo/Removal	90.859	0.006	1,090.3	0.1	0.50
2038		2 2B	TrafficControl/Demo/Removal	21.324	0.002	255.9	0.0	0.1
2038		2 2B	TrafficControl/Demo/RemovalTotal					0.8
2038		2 2C	Grading/Formwork	34.993	0.003	419.9	0.0	0.2
2038		2 2C	Grading/FormworkTotal					0.2
2038		2 2D	ConcretePouring	84.194	0.009	1,010.3	0.1	0.5
2038		2 2D	ConcretePouring	0.000	0.000	-	-	0.0
2038		2 2D	ConcretePouringTotal					0.5
2038		2 2E	UtilitiesRelocation	296.333	0.009	71,119.8	2.3	32.3
2038		2 2E	UtilitiesRelocation	999.803	0.030	239,952.7	7.2	108.9
2038		2 2E	UtilitiesRelocation	6.465	0.001	1,551.6	0.2	0.7
2038		2 2E	UtilitiesRelocation	48.412	0.005	11,618.8	1.3	5.3
2038		2 2E	UtilitiesRelocationTotal					147.2
2038		2 2F	CrosswalkRepaving	58.535	0.006	1,404.8	0.2	0.6
2038		2 2F	CrosswalkRepaving	45.430	0.003	1,090.3	0.1	0.5
2038		2 2F	CrosswalkRepaving	48.412	0.005	580.9	0.1	0.3
2038		2 2F	CrosswalkRepaving	7.217	0.001	86.6	0.0	0.0
2038		2 2F	CrosswalkRepavingTotal					1.4

Construction Equipment Emissions - Annual GHG Emissions

ProgramYear	Scenario	Phase ID	Phase Name	Daily GHG Emissions (1 Site)		Annual GHG Emissions		
				CO2 (lb/day)	CH4 (lb/day)	CO2 lb/year	CH4 lb/year	MTCO2e/year
2038	2	2G	TreeRemoval	279.644	0.005	3,355.7	0.1	1.5
2038	2	2G	TreeRemoval	26.018	0.276	312.2	3.3	0.2
2038	2	2G	TreeRemoval	4.696	0.004	56.4	0.0	0.0
2038	2	2G	TreeRemoval	27.001	0.023	324.0	0.3	0.2
2038	2	2G	TreeRemoval	42.648	0.003	511.8	0.0	0.2
2038	2	2G	TreeRemovalTotal					2.1
2038	2	2H	TreePlanting	24.281	0.003	291.4	0.0	0.1
2038	2	2H	TreePlantingTotal					0.1
2043	1	1A	Mobilization	0.000	0.000	-	-	0.00
2043	1	1A	Mobilization	59.337	0.006	176,526.6	16.5	80.33
2043	1	1A	MobilizationTotal					80.33
2043	1	1B	TrafficControl/Demo/Removal	0.000	0.000	-	-	0.00
2043	1	1B	TrafficControl/Demo/Removal	29.267	0.003	17,414.1	1.9	7.93
2043	1	1B	TrafficControl/Demo/Removal	90.859	0.006	54,061.3	3.5	24.58
2043	1	1B	TrafficControl/Demo/Removal	21.324	0.002	12,687.8	1.4	5.78
2043	1	1B	TrafficControl/Demo/RemovalTotal					38.3
2043	1	1C	Grading/Formwork	34.993	0.003	20,820.9	1.5	9.47
2043	1	1C	Grading/FormworkTotal					9.5
2043	1	1D	ConcretePouring	84.194	0.009	50,095.4	5.4	22.81
2043	1	1D	ConcretePouring	0.000	0.000	-	-	0.00
2043	1	1D	ConcretePouringTotal					22.8
2043	1	1E	UtilityAdjustment	44.202	0.004	52,600.2	4.9	23.93
2043	1	1E	UtilityAdjustment	148.166	0.004	176,317.9	5.3	80.06
2043	1	1E	UtilityAdjustment	8.419	0.001	10,019.1	1.0	4.56
2043	1	1E	UtilityAdjustmentTotal					108.6
2043	1	1F	TreeRemoval	279.644	0.005	166,388.3	2.9	75.52
2043	1	1F	TreeRemoval	26.018	0.276	15,480.8	164.1	9.55
2043	1	1F	TreeRemoval	4.696	0.004	2,794.1	2.2	1.30
2043	1	1F	TreeRemoval	27.001	0.023	16,065.8	13.5	7.50
2043	1	1F	TreeRemoval	42.648	0.003	25,375.7	1.7	11.54
2043	1	1F	TreeRemovalTotal					105.4
2043	1	1G	TreePlanting	16.187	0.002	9,631.5	1.0	4.38
2043	1	1G	TreePlantingTotal					4.4
2043	2	2A	Mobilization	0.000	0.000	-	-	0.00
2043	2	2A	Mobilization	59.337	0.006	3,560.2	0.3	1.62
2043	2	2A	MobilizationTotal					1.6
2043	2	2B	TrafficControl/Demo/Removal	0.000	0.000	-	-	0.00
2043	2	2B	TrafficControl/Demo/Removal	29.267	0.003	351.2	0.0	0.16
2043	2	2B	TrafficControl/Demo/Removal	90.859	0.006	1,090.3	0.1	0.50
2043	2	2B	TrafficControl/Demo/Removal	21.324	0.002	255.9	0.0	0.1
2043	2	2B	TrafficControl/Demo/RemovalTotal					0.8
2043	2	2C	Grading/Formwork	34.993	0.003	419.9	0.0	0.2
2043	2	2C	Grading/FormworkTotal					0.2
2043	2	2D	ConcretePouring	84.194	0.009	1,010.3	0.1	0.5
2043	2	2D	ConcretePouring	0.000	0.000	-	-	0.0
2043	2	2D	ConcretePouringTotal					0.5
2043	2	2E	UtilitiesRelocation	296.333	0.009	71,119.8	2.1	32.3
2043	2	2E	UtilitiesRelocation	999.803	0.030	239,952.7	7.2	108.9
2043	2	2E	UtilitiesRelocation	6.465	0.001	1,551.6	0.2	0.7
2043	2	2E	UtilitiesRelocation	48.412	0.005	11,618.8	1.1	5.3
2043	2	2E	UtilitiesRelocationTotal					147.2
2043	2	2F	CrosswalkRepaving	58.535	0.006	1,404.8	0.2	0.6
2043	2	2F	CrosswalkRepaving	45.430	0.003	1,090.3	0.1	0.5
2043	2	2F	CrosswalkRepaving	48.412	0.005	580.9	0.1	0.3
2043	2	2F	CrosswalkRepaving	7.217	0.001	86.6	0.0	0.0
2043	2	2F	CrosswalkRepavingTotal					1.4
2043	2	2G	TreeRemoval	279.644	0.005	3,355.7	0.1	1.5
2043	2	2G	TreeRemoval	26.018	0.276	312.2	3.3	0.2
2043	2	2G	TreeRemoval	4.696	0.004	56.4	0.0	0.0
2043	2	2G	TreeRemoval	27.001	0.023	324.0	0.3	0.2
2043	2	2G	TreeRemoval	42.648	0.003	511.8	0.0	0.2
2043	2	2G	TreeRemovalTotal					2.1
2043	2	2H	TreePlanting	16.187	0.002	194.2	0.0	0.1
2043	2	2H	TreePlantingTotal					0.1

Construction Worker and Truck Trips - Annual GHG Emissions

Year	Scenario	Activity Summary		Event Duration & Frequency		Workers							
		Event ID	Event Name	Event Length (Days)	Avg Scenarios/Year	Workers/Site	Miles/Worker* (RT)	Worker Miles/Day	Worker Miles/Year	CO2 (lb/year)	CH4 (lb/year)	N2O (lb/year)	MTCO2e/year
2018	1	1a	Mobilization	5	286	4	30	600	171600	132106.75	7.01	5.28	60.75
2018	1	1b	Traffic Control/Demo/Removal	1	286	4	30	600	34320	26421.35	1.40	1.06	12.15
2018	1	1c	Grading/Formwork	1	286	5	30	750	42900	33026.69	1.75	1.32	15.19
2018	1	1d	Concrete Pouring	1	286	9	30	1350	77220	59448.04	3.16	2.38	27.34
2018	1	1e	Utility Adjustment	2	286	5	30	750	85800	66053.38	3.51	2.64	30.37
2018	1	1f	Tree Removal	1	286	5	30	300	42900	33026.69	1.75	1.32	15.19
2018	1	1g	Tree Planting	1	286	3	30	180	25740	19816.01	1.05	0.79	9.11
2018	1	1h	Cleanup	1	286	3	30	450	25740	19816.01	1.05	0.79	9.11
2018	2	2a	Mobilization	5	12	4	30	120	7200	5542.94	0.29	0.22	2.55
2018	2	2b	Traffic Control/Demo/Removal	1	12	4	30	120	1440	1108.59	0.06	0.04	0.51
2018	2	2c	Grading/Formwork	1	12	5	30	150	1800	1385.74	0.07	0.06	0.64
2018	2	2d	Concrete Pouring	1	12	9	30	270	3240	2494.32	0.13	0.10	1.15
2018	2	2e	Utilities Relocation	20	12	5	30	150	36000	27714.70	1.47	1.11	12.74
2018	2	2f	Crosswalk Repaving	5	12	4	30	120	7200	5542.94	0.29	0.22	2.55
2018	2	2g	Tree Removal	1	12	5	30	150	1800	1385.74	0.07	0.06	0.64
2018	2	2h	Tree Planting	1	12	3	30	90	1080	831.44	0.04	0.03	0.38
2018	2	2i	Cleanup	1	12	4	30	120	1440	1108.59	0.06	0.04	0.51
2023	1	1a	Mobilization	5	332	4	30	720	199200	133107.97	4.91	4.09	61.01
2023	1	1b	Traffic Control/Demo/Removal	1	332	4	30	720	39840	26621.59	0.98	0.82	12.20
2023	1	1c	Grading/Formwork	1	332	5	30	900	49800	33276.99	1.23	1.02	15.25
2023	1	1d	Concrete Pouring	1	332	9	30	1620	89640	59898.59	2.21	1.84	27.45
2023	1	1e	Utility Adjustment	2	332	5	30	900	99600	66553.98	2.45	2.05	30.50
2023	1	1f	Tree Removal	1	332	5	30	450	49800	33276.99	1.23	1.02	15.25
2023	1	1g	Tree Planting	1	332	3	30	270	29880	19966.20	0.74	0.61	9.15
2023	1	1h	Cleanup	1	332	3	30	540	29880	19966.20	0.74	0.61	9.15
2023	2	2a	Mobilization	5	12	4	30	120	7200	4811.13	0.18	0.15	2.21
2023	2	2b	Traffic Control/Demo/Removal	1	12	4	30	120	1440	962.23	0.04	0.03	0.44
2023	2	2c	Grading/Formwork	1	12	5	30	150	1800	1202.78	0.04	0.04	0.55
2023	2	2d	Concrete Pouring	1	12	9	30	270	3240	2165.01	0.08	0.07	0.99
2023	2	2e	Utilities Relocation	20	12	5	30	150	36000	24055.66	0.89	0.74	11.03
2023	2	2f	Crosswalk Repaving	5	12	4	30	120	7200	4811.13	0.18	0.15	2.21
2023	2	2g	Tree Removal	1	12	5	30	150	1800	1202.78	0.04	0.04	0.55
2023	2	2h	Tree Planting	1	12	3	30	90	1080	721.67	0.03	0.02	0.33
2023	2	2i	Cleanup	1	12	4	30	120	1440	962.23	0.04	0.03	0.44
2028	1	1a	Mobilization	5	384	4	30	840	230400	135053.34	3.85	3.70	61.82
2028	1	1b	Traffic Control/Demo/Removal	1	384	4	30	840	46080	27010.67	0.77	0.74	12.36
2028	1	1c	Grading/Formwork	1	384	5	30	1050	57600	33763.34	0.96	0.93	15.45
2028	1	1d	Concrete Pouring	1	384	9	30	1890	103680	60774.00	1.73	1.67	27.82
2028	1	1e	Utility Adjustment	2	384	5	30	1050	115200	67526.67	1.92	1.85	30.91
2028	1	1f	Tree Removal	1	384	5	30	450	57600	33763.34	0.96	0.93	15.45
2028	1	1g	Tree Planting	2	384	4	30	360	92160	54021.34	1.54	1.48	24.73
2028	1	1h	Cleanup	1	384	3	30	630	34560	20258.00	0.58	0.56	9.27
2028	2	2a	Mobilization	5	12	4	30	120	7200	4220.42	0.12	0.12	1.93
2028	2	2b	Traffic Control/Demo/Removal	1	12	4	30	120	1440	844.08	0.02	0.02	0.39
2028	2	2c	Grading/Formwork	1	12	5	30	150	1800	1055.10	0.03	0.03	0.48
2028	2	2d	Concrete Pouring	1	12	9	30	270	3240	1899.19	0.05	0.05	0.87
2028	2	2e	Utilities Relocation	20	12	5	30	150	36000	21102.08	0.60	0.58	9.66
2028	2	2f	Crosswalk Repaving	5	12	4	30	120	7200	4220.42	0.12	0.12	1.93
2028	2	2g	Tree Removal	1	12	5	30	150	1800	1055.10	0.03	0.03	0.48
2028	2	2h	Tree Planting	2	12	4	30	120	2880	1688.17	0.05	0.05	0.77
2028	2	2i	Cleanup	1	12	4	30	120	1440	844.08	0.02	0.02	0.39

Construction Worker and Truck Trips - Annual GHG Emissions

Year	Scenario	Activity Summary		Trucks									
		Event ID	Event Name	Haul Trucks/Site	Miles/Haul (RT)	Water Trucks/Site	Miles/Water (RT)	Truck Miles/Day	Truck Miles/Year	CO2 (lb/year)	CH4 (lb/year)	N2O (lb/year)	MTCO2e/year
2018	1	1a	Mobilization	0	0	0	0	0	0	0.00	0.00	0.00	0.00
2018	1	1b	Traffic Control/Demo/Removal	4	20	1	40	600	34320	129541.13	6.57	20.51	61.63
2018	1	1c	Grading/Formwork	3	20	1	40	500	28600	107950.94	5.47	17.09	51.36
2018	1	1d	Concrete Pouring	4	40	0	0	800	45760	172721.51	8.76	27.35	82.18
2018	1	1e	Utility Adjustment	2	40	0	0	400	45760	172721.51	8.76	27.35	82.18
2018	1	1f	Tree Removal	2	20	0	0	80	11440	43180.38	2.19	6.84	20.54
2018	1	1g	Tree Planting	2	20	0	0	80	11440	43180.38	2.19	6.84	20.54
2018	1	1h	Cleanup	3	10	0	0	150	8580	32385.28	1.64	5.13	15.41
2018	2	2a	Mobilization	0	0	0	0	0	0	0.00	0.00	0.00	0.00
2018	2	2b	Traffic Control/Demo/Removal	4	20	1	40	120	1440	5435.29	0.28	0.86	2.59
2018	2	2c	Grading/Formwork	3	20	1	40	100	1200	4529.41	0.23	0.72	2.15
2018	2	2d	Concrete Pouring	4	40	0	0	160	1920	7247.06	0.37	1.15	3.45
2018	2	2e	Utilities Relocation	2	40	0	0	80	19200	72470.56	3.67	11.47	34.48
2018	2	2f	Crosswalk Repaving	1	40	0	0	40	2400	9058.82	0.46	1.43	4.31
2018	2	2g	Tree Removal	2	20	0	0	40	480	1811.76	0.09	0.29	0.86
2018	2	2h	Tree Planting	2	20	0	0	40	480	1811.76	0.09	0.29	0.86
2018	2	2i	Cleanup	3	10	0	0	30	360	1358.82	0.07	0.22	0.65
2023	1	1a	Mobilization	0	0	0	0	0	0	0.00	0.00	0.00	0.00
2023	1	1b	Traffic Control/Demo/Removal	4	20	1	40	720	39840	131025.33	7.29	20.81	62.36
2023	1	1c	Grading/Formwork	3	20	1	40	600	33200	109187.77	6.08	17.34	51.96
2023	1	1d	Concrete Pouring	4	40	0	0	960	53120	174700.44	9.72	27.75	83.14
2023	1	1e	Utility Adjustment	2	40	0	0	480	53120	174700.44	9.72	27.75	83.14
2023	1	1f	Tree Removal	2	20	0	0	120	13280	43675.11	2.43	6.94	20.79
2023	1	1g	Tree Planting	2	20	0	0	120	13280	43675.11	2.43	6.94	20.79
2023	1	1h	Cleanup	3	10	0	0	180	9960	32756.33	1.82	5.20	15.59
2023	2	2a	Mobilization	0	0	0	0	0	0	0.00	0.00	0.00	0.00
2023	2	2b	Traffic Control/Demo/Removal	4	20	1	40	120	1440	4735.86	0.26	0.75	2.25
2023	2	2c	Grading/Formwork	3	20	1	40	100	1200	3946.55	0.22	0.63	1.88
2023	2	2d	Concrete Pouring	4	40	0	0	160	1920	6314.47	0.35	1.00	3.01
2023	2	2e	Utilities Relocation	2	40	0	0	80	19200	63144.74	3.51	10.03	30.05
2023	2	2f	Crosswalk Repaving	1	40	0	0	40	2400	7893.09	0.44	1.25	3.76
2023	2	2g	Tree Removal	2	20	0	0	40	480	1578.62	0.09	0.25	0.75
2023	2	2h	Tree Planting	2	20	0	0	40	480	1578.62	0.09	0.25	0.75
2023	2	2i	Cleanup	3	10	0	0	30	360	1183.96	0.07	0.19	0.56
2028	1	1a	Mobilization	0	0	0	0	0	0	0.00	0.00	0.00	0.00
2028	1	1b	Traffic Control/Demo/Removal	4	20	1	40	840	46080	138310.79	8.82	22.01	65.85
2028	1	1c	Grading/Formwork	3	20	1	40	700	38400	115258.99	7.35	18.34	54.87
2028	1	1d	Concrete Pouring	4	40	0	0	1120	61440	184414.38	11.76	29.35	87.80
2028	1	1e	Utility Adjustment	2	40	0	0	560	61440	184414.38	11.76	29.35	87.80
2028	1	1f	Tree Removal	2	20	0	0	120	15360	46103.60	2.94	7.34	21.95
2028	1	1g	Tree Planting	2	20	0	0	120	30720	92207.19	5.88	14.67	43.90
2028	1	1h	Cleanup	3	10	0	0	210	11520	34577.70	2.20	5.50	16.46
2028	2	2a	Mobilization	0	0	0	0	0	0	0.00	0.00	0.00	0.00
2028	2	2b	Traffic Control/Demo/Removal	4	20	1	40	120	1440	4322.21	0.28	0.69	2.06
2028	2	2c	Grading/Formwork	3	20	1	40	100	1200	3601.84	0.23	0.57	1.71
2028	2	2d	Concrete Pouring	4	40	0	0	160	1920	5762.95	0.37	0.92	2.74
2028	2	2e	Utilities Relocation	2	40	0	0	80	19200	57629.49	3.67	9.17	27.44
2028	2	2f	Crosswalk Repaving	1	40	0	0	40	2400	7203.69	0.46	1.15	3.43
2028	2	2g	Tree Removal	2	20	0	0	40	480	1440.74	0.09	0.23	0.69
2028	2	2h	Tree Planting	2	20	0	0	40	960	2881.47	0.18	0.46	1.37
2028	2	2i	Cleanup	3	10	0	0	30	360	1080.55	0.07	0.17	0.51

Construction Worker and Truck Trips - Annual GHG Emissions

Year	Scenario	Activity Summary		Event Duration & Frequency		Workers							
		Event ID	Event Name	Event Length (Days)	Avg Scenarios/Year	Workers/Site	Miles/Worker* (RT)	Worker Miles/Day	Worker Miles/Year	CO2 (lb/year)	CH4 (lb/year)	N2O (lb/year)	MTCO2e/year
2033	1	1a	Mobilization	5	445	4	30	960	267000	143616.51	3.29	3.78	65.71
2033	1	1b	Traffic Control/Demo/Removal	1	445	4	30	960	53400	28723.30	0.66	0.76	13.14
2033	1	1c	Grading/Formwork	1	445	5	30	1200	66750	35904.13	0.82	0.95	16.43
2033	1	1d	Concrete Pouring	1	445	9	30	2160	120150	64627.43	1.48	1.70	29.57
2033	1	1e	Utility Adjustment	2	445	5	30	1200	133500	71808.25	1.64	1.89	32.85
2033	1	1f	Tree Removal	1	445	5	30	600	66750	35904.13	0.82	0.95	16.43
2033	1	1g	Tree Planting	2	445	4	30	480	106800	57446.60	1.32	1.51	26.28
2033	1	1h	Cleanup	1	445	3	30	720	40050	21542.48	0.49	0.57	9.86
2033	2	2a	Mobilization	5	12	4	30	120	7200	3872.80	0.09	0.10	1.77
2033	2	2b	Traffic Control/Demo/Removal	1	12	4	30	120	1440	774.56	0.02	0.02	0.35
2033	2	2c	Grading/Formwork	1	12	5	30	150	1800	968.20	0.02	0.03	0.44
2033	2	2d	Concrete Pouring	1	12	9	30	270	3240	1742.76	0.04	0.05	0.80
2033	2	2e	Utilities Relocation	20	12	5	30	150	36000	19364.02	0.44	0.51	8.86
2033	2	2f	Crosswalk Repaving	5	12	4	30	120	7200	3872.80	0.09	0.10	1.77
2033	2	2g	Tree Removal	1	12	5	30	150	1800	968.20	0.02	0.03	0.44
2033	2	2h	Tree Planting	2	12	4	30	120	2880	1549.12	0.04	0.04	0.71
2033	2	2i	Cleanup	1	12	4	30	120	1440	774.56	0.02	0.02	0.35
2038	1	1a	Mobilization	5	515	4	30	1200	309000	158217.32	3.03	4.17	72.38
2038	1	1b	Traffic Control/Demo/Removal	1	515	4	30	1200	61800	31643.46	0.61	0.83	14.48
2038	1	1c	Grading/Formwork	1	515	5	30	1500	77250	39554.33	0.76	1.04	18.09
2038	1	1d	Concrete Pouring	1	515	9	30	2700	139050	71197.79	1.36	1.88	32.57
2038	1	1e	Utility Adjustment	2	515	5	30	1500	154500	79108.66	1.51	2.09	36.19
2038	1	1f	Tree Removal	1	515	5	30	1500	77250	39554.33	0.76	1.04	18.09
2038	1	1g	Tree Planting	2	515	4	30	600	123600	63286.93	1.21	1.67	28.95
2038	1	1h	Cleanup	1	515	3	30	900	46350	23732.60	0.45	0.63	10.86
2038	2	2a	Mobilization	5	12	4	30	120	7200	3686.62	0.07	0.10	1.69
2038	2	2b	Traffic Control/Demo/Removal	1	12	4	30	120	1440	737.32	0.01	0.02	0.34
2038	2	2c	Grading/Formwork	1	12	5	30	150	1800	921.65	0.02	0.02	0.42
2038	2	2d	Concrete Pouring	1	12	9	30	270	3240	1658.98	0.03	0.04	0.76
2038	2	2e	Utilities Relocation	20	12	5	30	150	36000	18433.09	0.35	0.49	8.43
2038	2	2f	Crosswalk Repaving	5	12	4	30	120	7200	3686.62	0.07	0.10	1.69
2038	2	2g	Tree Removal	1	12	5	30	150	1800	921.65	0.02	0.02	0.42
2038	2	2h	Tree Planting	2	12	4	30	120	2880	1474.65	0.03	0.04	0.67
2038	2	2i	Cleanup	1	12	4	30	120	1440	737.32	0.01	0.02	0.34
2043	1	1a	Mobilization	5	595	4	30	1320	357000	178622.01	3.04	4.76	81.71
2043	1	1b	Traffic Control/Demo/Removal	1	595	4	30	1320	71400	35724.40	0.61	0.95	16.34
2043	1	1c	Grading/Formwork	1	595	5	30	1650	89250	44655.50	0.76	1.19	20.43
2043	1	1d	Concrete Pouring	1	595	9	30	2970	160650	80379.91	1.37	2.14	36.77
2043	1	1e	Utility Adjustment	2	595	5	30	1650	178500	89311.01	1.52	2.38	40.86
2043	1	1f	Tree Removal	1	595	5	30	1650	89250	44655.50	0.76	1.19	20.43
2043	1	1g	Tree Planting	1	595	3	30	450	53550	26793.30	0.46	0.71	12.26
2043	1	1h	Cleanup	1	595	3	30	990	53550	26793.30	0.46	0.71	12.26
2043	2	2a	Mobilization	5	12	4	30	120	7200	3602.46	0.06	0.10	1.65
2043	2	2b	Traffic Control/Demo/Removal	1	12	4	30	120	1440	720.49	0.01	0.02	0.33
2043	2	2c	Grading/Formwork	1	12	5	30	150	1800	900.62	0.02	0.02	0.41
2043	2	2d	Concrete Pouring	1	12	9	30	270	3240	1621.11	0.03	0.04	0.74
2043	2	2e	Utilities Relocation	20	12	5	30	150	36000	18012.30	0.31	0.48	8.24
2043	2	2f	Crosswalk Repaving	5	12	4	30	120	7200	3602.46	0.06	0.10	1.65
2043	2	2g	Tree Removal	1	12	5	30	150	1800	900.62	0.02	0.02	0.41
2043	2	2h	Tree Planting	1	12	3	30	90	1080	540.37	0.01	0.01	0.25
2043	2	2i	Cleanup	1	12	4	30	120	1440	720.49	0.01	0.02	0.33

Construction Worker and Truck Trips - Annual GHG Emissions

Year	Scenario	Activity Summary		Trucks									
		Event ID	Event Name	Haul Trucks/Site	Miles/Haul (RT)	Water Trucks/Site	Miles/Water (RT)	Truck Miles/Day	Truck Miles/Year	CO2 (lb/year)	CH4 (lb/year)	N2O (lb/year)	MTCO2e/year
2033	1	1a	Mobilization	0	0	0	0	0	0	0.00	0.00	0.00	0.00
2033	1	1b	Traffic Control/Demo/Removal	4	20	1	40	960	53400	144931.82	10.63	23.10	69.03
2033	1	1c	Grading/Formwork	3	20	1	40	800	44500	120776.52	8.86	19.25	57.52
2033	1	1d	Concrete Pouring	4	40	0	0	1280	71200	193242.43	14.18	30.80	92.04
2033	1	1e	Utility Adjustment	2	40	0	0	640	71200	193242.43	14.18	30.80	92.04
2033	1	1f	Tree Removal	2	20	0	0	160	17800	48310.61	3.54	7.70	23.01
2033	1	1g	Tree Planting	2	20	0	0	160	35600	96621.22	7.09	15.40	46.02
2033	1	1h	Cleanup	3	10	0	0	240	13350	36232.96	2.66	5.78	17.26
2033	2	2a	Mobilization	0	0	0	0	0	0	0.00	0.00	0.00	0.00
2033	2	2b	Traffic Control/Demo/Removal	4	20	1	40	120	1440	3908.27	0.29	0.62	1.86
2033	2	2c	Grading/Formwork	3	20	1	40	100	1200	3256.89	0.24	0.52	1.55
2033	2	2d	Concrete Pouring	4	40	0	0	160	1920	5211.03	0.38	0.83	2.48
2033	2	2e	Utilities Relocation	2	40	0	0	80	19200	52110.32	3.82	8.31	24.82
2033	2	2f	Crosswalk Repaving	1	40	0	0	40	2400	6513.79	0.48	1.04	3.10
2033	2	2g	Tree Removal	2	20	0	0	40	480	1302.76	0.10	0.21	0.62
2033	2	2h	Tree Planting	2	20	0	0	40	960	2605.52	0.19	0.42	1.24
2033	2	2i	Cleanup	3	10	0	0	30	360	977.07	0.07	0.16	0.47
2038	1	1a	Mobilization	0	0	0	0	0	0	0.00	0.00	0.00	0.00
2038	1	1b	Traffic Control/Demo/Removal	4	20	1	40	1200	61800	156032.35	12.47	24.89	74.33
2038	1	1c	Grading/Formwork	3	20	1	40	1000	51500	130026.96	10.39	20.74	61.94
2038	1	1d	Concrete Pouring	4	40	0	0	1600	82400	208043.14	16.62	33.19	99.11
2038	1	1e	Utility Adjustment	2	40	0	0	800	82400	208043.14	16.62	33.19	99.11
2038	1	1f	Tree Removal	2	20	0	0	400	20600	52010.78	4.16	8.30	24.78
2038	1	1g	Tree Planting	2	20	0	0	200	41200	104021.57	8.31	16.59	49.55
2038	1	1h	Cleanup	3	10	0	0	300	15450	39008.09	3.12	6.22	18.58
2038	2	2a	Mobilization	0	0	0	0	0	0	0.00	0.00	0.00	0.00
2038	2	2b	Traffic Control/Demo/Removal	4	20	1	40	120	1440	3635.71	0.29	0.58	1.73
2038	2	2c	Grading/Formwork	3	20	1	40	100	1200	3029.75	0.24	0.48	1.44
2038	2	2d	Concrete Pouring	4	40	0	0	160	1920	4847.61	0.39	0.77	2.31
2038	2	2e	Utilities Relocation	2	40	0	0	80	19200	48476.07	3.87	7.73	23.09
2038	2	2f	Crosswalk Repaving	1	40	0	0	40	2400	6059.51	0.48	0.97	2.89
2038	2	2g	Tree Removal	2	20	0	0	40	480	1211.90	0.10	0.19	0.58
2038	2	2h	Tree Planting	2	20	0	0	40	960	2423.80	0.19	0.39	1.15
2038	2	2i	Cleanup	3	10	0	0	30	360	908.93	0.07	0.14	0.43
2043	1	1a	Mobilization	0	0	0	0	0	0	0.00	0.00	0.00	0.00
2043	1	1b	Traffic Control/Demo/Removal	4	20	1	40	1320	71400	173663.98	14.26	27.71	82.74
2043	1	1c	Grading/Formwork	3	20	1	40	1100	59500	144719.98	11.88	23.09	68.95
2043	1	1d	Concrete Pouring	4	40	0	0	1760	95200	231551.97	19.01	36.94	110.32
2043	1	1e	Utility Adjustment	2	40	0	0	880	95200	231551.97	19.01	36.94	110.32
2043	1	1f	Tree Removal	2	20	0	0	440	23800	57887.99	4.75	9.24	27.58
2043	1	1g	Tree Planting	2	20	0	0	200	23800	57887.99	4.75	9.24	27.58
2043	1	1h	Cleanup	3	10	0	0	330	17850	43416.00	3.56	6.93	20.68
2043	2	2a	Mobilization	0	0	0	0	0	0	0.00	0.00	0.00	0.00
2043	2	2b	Traffic Control/Demo/Removal	4	20	1	40	120	1440	3502.47	0.29	0.56	1.67
2043	2	2c	Grading/Formwork	3	20	1	40	100	1200	2918.72	0.24	0.47	1.39
2043	2	2d	Concrete Pouring	4	40	0	0	160	1920	4669.96	0.38	0.75	2.22
2043	2	2e	Utilities Relocation	2	40	0	0	80	19200	46699.56	3.83	7.45	22.25
2043	2	2f	Crosswalk Repaving	1	40	0	0	40	2400	5837.44	0.48	0.93	2.78
2043	2	2g	Tree Removal	2	20	0	0	40	480	1167.49	0.10	0.19	0.56
2043	2	2h	Tree Planting	2	20	0	0	40	480	1167.49	0.10	0.19	0.56
2043	2	2i	Cleanup	3	10	0	0	30	360	875.62	0.07	0.14	0.42

Street Tree Removal Carbon Sequestration Calculations

Data Request Info

Typical Trees Removed (per 650 feet)		Typical Trees Replaced (per 650 feet)	
Species	Number	Species	Number
Ficus Nitida	1	Pink Trumpet	2 (3 years 11-21)
Pine	1	Australian Willow	2 (3 years 11-21)
Carob	1		

Analysis	Program Year	1	2	3	4	5	6	7	8
	Year	2018	2019	2020	2021	2022	2023	2024	2025
Removals (Existing Trees)	Carob Sequestration (kgCO2/tree/year)	69.436	69.436	69.436	69.436	69.436	69.436	69.436	69.436
	Ficus Sequestration (kgCO2/tree/year)	42.914	42.914	42.914	42.914	42.914	42.914	42.914	42.914
	Pine Sequestration (kgCO2/tree/year)	89.365	89.365	89.365	89.365	89.365	89.365	89.365	89.365
	3-Tree-Cluster Sequestration (kgCO2/3trees/year)	201.715	201.715	201.715	201.715	201.715	201.715	201.715	201.715
	Age	30	30	30	30	30	30	30	30
	Number/Type/Year	97	97	97	97	97	112	112	112
	Total Sequestration Lost (MTCO2e/year)	19.6	39.3	58.9	78.5	98.2	135.6	158.1	180.7
Replacements (New Trees)	Trumpet Sequestration (kgCO2/tree/year)	2.478	2.478	2.478	2.478	2.478	2.478	2.478	2.478
	Willow Sequestration (kgCO2/tree/year)	0.896	0.896	0.896	0.896	0.896	0.896	0.896	0.896
	New 2-Tree-Cluster Sequestration (kgCO2/2trees/year)	3.373	3.373	3.373	3.373	3.373	3.373	3.373	3.373
	Age	3	3	3	3	3	3	3	3
	Number/Type/Year	292	292	292	292	292	336	336	336
	Total Sequestration Added (MTCO2e/year)	0.985	0.985	0.985	0.985	0.985	1.133	1.133	1.133
Planted Trees Aging	Trumpet Sequestration (kgCO2/tree/year)	2.478	4.875	7.662	10.710	13.935	17.283	20.713	24.195
	Willow Sequestration (kgCO2/tree/year)	0.896	1.519	2.238	3.035	3.901	4.827	5.807	6.837
	2-Tree Sequestration (kgCO2/2trees/year)	3.373	6.394	9.900	13.745	17.836	22.110	26.520	31.032
	Age	3	4	5	6	7	8	9	10
	Number/Type/Year	0	292	292	292	292	292	336	336
	Total Sequestration Added for Planted Trees (MTCO2e/year)	0.000	1.867	2.891	4.014	5.208	6.456	8.911	10.427
Total Sequestration for Program Trees (MTCO2e/year)		1.0	2.9	5.7	9.8	15.0	21.6	30.5	40.9
Net Sequestration Change (Annual)		-18.6	-36.4	-53.2	-68.8	-83.2	-114.0	-127.7	-139.8

Street Tree Removal Carbon Sequestration Calculations

Data Request Info

Typical Trees Removed (per 650 feet)		Typical Trees Replaced (per 650 feet)	
Species	Number	Species	Number
Ficus Nitida	1	Pink Trumpet	2 (3 years 11-21)
Pine	1	Australian Willow	2 (3 years 11-21)
Carob	1		

Analysis	Program Year	9	10	11	12	13	14	15	16
	Year	2026	2027	2028	2029	2030	2031	2032	2033
Removals (Existing Trees)	Carob Sequestration (kgCO2/tree/year)	69.436	69.436	69.436	69.436	69.436	69.436	69.436	69.436
	Ficus Sequestration (kgCO2/tree/year)	42.914	42.914	42.914	42.914	42.914	42.914	42.914	42.914
	Pine Sequestration (kgCO2/tree/year)	89.365	89.365	89.365	89.365	89.365	89.365	89.365	89.365
	3-Tree-Cluster Sequestration (kgCO2/3trees/year)	201.715	201.715	201.715	201.715	201.715	201.715	201.715	201.715
	Age	30	30	30	30	30	30	30	30
	Number/Type/Year	112	112	129	129	129	129	129	149
	Total Sequestration Lost (MTCO2e/year)	203.3	225.9	287.0	313.1	339.2	365.2	391.3	480.9
Replacements (New Trees)	Trumpet Sequestration (kgCO2/tree/year)	2.478	2.478	2.478	2.478	2.478	2.478	2.478	2.478
	Willow Sequestration (kgCO2/tree/year)	0.896	0.896	0.896	0.896	0.896	0.896	0.896	0.896
	New 2-Tree-Cluster Sequestration (kgCO2/2trees/year)	3.373	3.373	3.373	3.373	3.373	3.373	3.373	3.373
	Age	3	3	3	3	3	3	3	3
	Number/Type/Year	336	336	582	582	582	582	582	671
	Total Sequestration Added (MTCO2e/year)	1.133	1.133	1.963	1.963	1.963	1.963	1.963	2.263
Planted Trees Aging	Trumpet Sequestration (kgCO2/tree/year)	27.705	31.225	34.740	38.237	41.704	45.135	48.519	51.852
	Willow Sequestration (kgCO2/tree/year)	7.913	9.031	10.189	11.385	12.615	13.880	15.176	16.502
	2-Tree Sequestration (kgCO2/2trees/year)	35.618	40.257	44.930	49.621	54.320	59.014	63.695	68.355
	Age	11	12	13	14	15	16	17	18
	Number/Type/Year	336	336	336	582	582	582	582	582
	Total Sequestration Added for Planted Trees (MTCO2e/year)	11.968	13.526	15.096	28.880	31.614	34.346	37.070	39.782
	Total Sequestration for Program Trees (MTCO2e/year)	52.9	66.4	82.3	111.2	142.8	177.2	214.2	254.3
Net Sequestration Change (Annual)	-150.5	-159.5	-204.6	-201.9	-196.3	-188.1	-177.1	-226.6	

Street Tree Removal Carbon Sequestration Calculations

Data Request Info

Typical Trees Removed (per 650 feet)		Typical Trees Replaced (per 650 feet)	
Species	Number	Species	Number
Ficus Nitida	1	Pink Trumpet	2 (3 years 11-21)
Pine	1	Australian Willow	2 (3 years 11-21)
Carob	1		

Analysis	Program Year	17	18	19	20	21	22	23	24
	Year	2034	2035	2036	2037	2038	2039	2040	2041
Removals (Existing Trees)	Carob Sequestration (kgCO2/tree/year)	69.436	69.436	69.436	69.436	69.436	69.436	69.436	69.436
	Ficus Sequestration (kgCO2/tree/year)	42.914	42.914	42.914	42.914	42.914	42.914	42.914	42.914
	Pine Sequestration (kgCO2/tree/year)	89.365	89.365	89.365	89.365	89.365	89.365	89.365	89.365
	3-Tree-Cluster Sequestration (kgCO2/3trees/year)	201.715	201.715	201.715	201.715	201.715	201.715	201.715	201.715
	Age	30	30	30	30	30	30	30	30
	Number/Type/Year	149	149	149	149	172	172	172	172
	Total Sequestration Lost (MTCO2e/year)	510.9	541.0	571.1	601.1	727.2	761.8	796.4	831.1
Replacements (New Trees)	Trumpet Sequestration (kgCO2/tree/year)	2.478	2.478	2.478	2.478	2.478	2.478	2.478	2.478
	Willow Sequestration (kgCO2/tree/year)	0.896	0.896	0.896	0.896	0.896	0.896	0.896	0.896
	New 2-Tree-Cluster Sequestration (kgCO2/2trees/year)	3.373	3.373	3.373	3.373	3.373	3.373	3.373	3.373
	Age	3	3	3	3	3	3	3	3
	Number/Type/Year	671	671	671	671	567	567	567	567
	Total Sequestration Added (MTCO2e/year)	2.263	2.263	2.263	2.263	1.913	1.913	1.913	1.913
Planted Trees Aging	Trumpet Sequestration (kgCO2/tree/year)	55.128	58.341	61.487	64.564	67.566	70.493	73.340	76.107
	Willow Sequestration (kgCO2/tree/year)	17.858	19.242	20.653	22.089	23.551	25.037	26.547	28.080
	2-Tree Sequestration (kgCO2/2trees/year)	72.986	77.583	82.140	86.653	91.118	95.530	99.888	104.187
	Age	19	20	21	22	23	24	25	26
	Number/Type/Year	671	671	671	671	671	567	567	567
	Total Sequestration Added for Planted Trees (MTCO2e/year)	48.974	52.058	55.116	58.144	61.140	54.166	56.636	59.074
Total Sequestration for Program Trees (MTCO2e/year)	303.3	355.4	410.5	468.6	529.4	583.6	640.2	699.3	
Net Sequestration Change (Annual)	-207.7	-185.6	-160.6	-132.5	-197.8	-178.2	-156.2	-131.8	

Street Tree Removal Carbon Sequestration Calculations

Data Request Info

Typical Trees Removed (per 650 feet)		Typical Trees Replaced (per 650 feet)	
Species	Number	Species	Number
Ficus Nitida	1	Pink Trumpet	2 (3 years 11-21)
Pine	1	Australian Willow	2 (3 years 11-21)
Carob	1		

Analysis	Program Year	25	26	27	28	29	30
	Year	2042	2043	2044	2045	2045	2045
Removals (Existing Trees)	Carob Sequestration (kgCO2/tree/year)	69.436	69.436	69.436	69.436	69.436	69.436
	Ficus Sequestration (kgCO2/tree/year)	42.914	42.914	42.914	42.914	42.914	42.914
	Pine Sequestration (kgCO2/tree/year)	89.365	89.365	89.365	89.365	89.365	89.365
	3-Tree-Cluster Sequestration (kgCO2/3trees/year)	201.715	201.715	201.715	201.715	201.715	201.715
	Age	30	30	30	30	30	30
	Number/Type/Year	172	198	198	198	198	198
	Total Sequestration Lost (MTCO2e/year)	865.7	1038.4	1078.4	1118.3	1158.2	1198.2
Replacements (New Trees)	Trumpet Sequestration (kgCO2/tree/year)	2.478	2.478	2.478	2.478	2.478	2.478
	Willow Sequestration (kgCO2/tree/year)	0.896	0.896	0.896	0.896	0.896	0.896
	New 2-Tree-Cluster Sequestration (kgCO2/2trees/year)	3.373	3.373	3.373	3.373	3.373	3.373
	Age	3	3	3	3	3	3
	Number/Type/Year	567	594	594	594	594	594
	Total Sequestration Added (MTCO2e/year)	1.913	2.004	2.004	2.004	2.004	2.004
Planted Trees Aging	Trumpet Sequestration (kgCO2/tree/year)	78.791	81.390	83.904	86.331	86.331	86.331
	Willow Sequestration (kgCO2/tree/year)	29.634	31.210	32.807	34.425	34.425	34.425
	2-Tree Sequestration (kgCO2/2trees/year)	108.425	112.601	116.711	120.755	120.755	120.755
	Age	27	28	29	30	31	32
	Number/Type/Year	567	567	594	594	594	594
	Total Sequestration Added for Planted Trees (MTCO2e/year)	61.477	63.845	69.327	71.729	71.729	71.729
	Total Sequestration for Program Trees (MTCO2e/year)	760.8	824.7	894.0	965.7	1037.5	1109.2
Net Sequestration Change (Annual)	-104.9	-213.7	-184.4	-152.6	-120.8	-89.0	

CTCC Tree Sequestration Data

Generic Name	CTCC Species	Age (Years)	Height (ft)	CO2 Sequestration (kg/tree/year)	Total CO2 Stored (kg/tree)	Above Ground Biomass (kg/tree)
Carob	Ceratonia siliqua	1	2.8	0.405	0.496	0.211
Carob	Ceratonia siliqua	2	2.8	0.405	0.901	0.211
Carob	Ceratonia siliqua	3	2.8	0.405	1.306	0.211
Carob	Ceratonia siliqua	4	2.8	0.405	1.710	0.211
Carob	Ceratonia siliqua	5	4.3	1.092	2.802	0.675
Carob	Ceratonia siliqua	6	5.8	2.186	4.989	1.605
Carob	Ceratonia siliqua	7	7.2	3.665	8.654	3.162
Carob	Ceratonia siliqua	8	8.5	5.483	14.136	5.493
Carob	Ceratonia siliqua	9	9.8	7.587	21.723	8.718
Carob	Ceratonia siliqua	10	11	9.928	31.652	12.938
Carob	Ceratonia siliqua	11	12.1	12.462	44.114	18.235
Carob	Ceratonia siliqua	12	13.1	15.151	59.265	24.675
Carob	Ceratonia siliqua	13	14.1	17.961	77.226	32.310
Carob	Ceratonia siliqua	14	15	20.866	98.092	41.180
Carob	Ceratonia siliqua	15	15.8	23.843	121.935	51.315
Carob	Ceratonia siliqua	16	16.6	26.873	148.808	62.738
Carob	Ceratonia siliqua	17	17.4	29.941	178.749	75.464
Carob	Ceratonia siliqua	18	18.1	33.033	211.782	89.506
Carob	Ceratonia siliqua	19	18.8	36.138	247.920	104.867
Carob	Ceratonia siliqua	20	19.4	39.248	287.167	121.550
Carob	Ceratonia siliqua	21	20.1	42.354	329.522	139.553
Carob	Ceratonia siliqua	22	20.7	45.452	374.974	158.873
Carob	Ceratonia siliqua	23	21.2	48.535	423.508	179.504
Carob	Ceratonia siliqua	24	21.8	51.599	475.108	201.437
Carob	Ceratonia siliqua	25	22.3	54.641	529.749	224.663
Carob	Ceratonia siliqua	26	22.8	57.658	587.407	249.172
Carob	Ceratonia siliqua	27	23.3	60.648	648.055	274.952
Carob	Ceratonia siliqua	28	23.8	63.609	711.664	301.990
Carob	Ceratonia siliqua	29	24.3	66.538	778.202	330.273
Carob	Ceratonia siliqua	30	24.7	69.436	847.639	359.788
Carob	Ceratonia siliqua	31	25.1	72.301	918.726	390.521
Carob	Ceratonia siliqua	32	25.5	75.133	993.858	422.457
Carob	Ceratonia siliqua	33	25.9	77.930	1071.788	455.583
Carob	Ceratonia siliqua	34	26.3	80.693	1152.481	489.883
Carob	Ceratonia siliqua	35	26.7	83.421	1235.903	525.343
Carob	Ceratonia siliqua	36	27.1	86.115	1322.018	561.948
Carob	Ceratonia siliqua	37	27.4	88.775	1410.793	599.683
Carob	Ceratonia siliqua	38	27.8	91.399	1502.192	638.534
Carob	Ceratonia siliqua	39	28.1	93.990	1596.182	678.486
Carob	Ceratonia siliqua	40	28.4	96.546	1692.728	719.525
Carob	Ceratonia siliqua	41	28.8	99.069	1791.797	761.636
Carob	Ceratonia siliqua	42	29.1	101.558	1893.354	804.805
Carob	Ceratonia siliqua	43	29.4	104.014	1997.368	849.018
Carob	Ceratonia siliqua	44	29.7	106.437	2103.806	894.261
Carob	Ceratonia siliqua	45	30	108.828	2212.634	940.520
Carob	Ceratonia siliqua	46	30.2	111.188	2323.822	987.783
Carob	Ceratonia siliqua	47	30.5	113.516	2437.337	1036.034

CTCC Tree Sequestration Data

Generic Name	CTCC Species	Age (Years)	Height (ft)	CO2 Sequestration (kg/tree/year)	Total CO2 Stored (kg/tree)	Above Ground Biomass (kg/tree)
Carrotwood	Cupaniopsis anacardioides	1	8.5	1.614	1.614	0.686
Carrotwood	Cupaniopsis anacardioides	2	12.8	7.310	8.924	3.793
Carrotwood	Cupaniopsis anacardioides	3	15.3	11.901	20.825	8.852
Carrotwood	Cupaniopsis anacardioides	4	17.1	14.838	35.664	15.159
Carrotwood	Cupaniopsis anacardioides	5	18.3	16.700	52.363	22.258
Carrotwood	Cupaniopsis anacardioides	6	19.3	17.889	70.252	29.862
Carrotwood	Cupaniopsis anacardioides	7	20.2	18.647	88.900	37.788
Carrotwood	Cupaniopsis anacardioides	8	20.8	19.122	108.022	45.917
Carrotwood	Cupaniopsis anacardioides	9	21.4	19.404	127.426	54.165
Carrotwood	Cupaniopsis anacardioides	10	21.9	19.553	146.978	62.476
Carrotwood	Cupaniopsis anacardioides	11	22.4	19.607	166.585	70.810
Carrotwood	Cupaniopsis anacardioides	12	22.8	19.594	186.179	79.139
Carrotwood	Cupaniopsis anacardioides	13	23.2	19.532	205.711	87.441
Carrotwood	Cupaniopsis anacardioides	14	23.5	19.435	225.147	95.703
Carrotwood	Cupaniopsis anacardioides	15	23.8	19.313	244.460	103.912
Carrotwood	Cupaniopsis anacardioides	16	24.1	19.172	263.632	112.062
Carrotwood	Cupaniopsis anacardioides	17	24.3	19.019	282.651	120.146
Carrotwood	Cupaniopsis anacardioides	18	24.6	18.855	301.506	128.161
Carrotwood	Cupaniopsis anacardioides	19	24.8	18.686	320.192	136.103
Carrotwood	Cupaniopsis anacardioides	20	25	18.513	338.705	143.973
Carrotwood	Cupaniopsis anacardioides	21	25.2	18.337	357.042	151.767
Carrotwood	Cupaniopsis anacardioides	22	25.4	18.160	375.202	159.486
Carrotwood	Cupaniopsis anacardioides	23	25.6	17.984	393.186	167.131
Carrotwood	Cupaniopsis anacardioides	24	25.7	17.808	410.994	174.701
Carrotwood	Cupaniopsis anacardioides	25	25.9	17.634	428.628	182.196
Carrotwood	Cupaniopsis anacardioides	26	26	17.462	446.090	189.619
Carrotwood	Cupaniopsis anacardioides	27	26.2	17.292	463.382	196.969
Carrotwood	Cupaniopsis anacardioides	28	26.3	17.124	480.505	204.248
Carrotwood	Cupaniopsis anacardioides	29	26.5	16.959	497.464	211.456
Carrotwood	Cupaniopsis anacardioides	30	26.6	16.797	514.261	218.596
Ficus (Indian Laurel Fig)	Ficus thonningii	1	1.8	0.338	0.338	0.144
Ficus (Indian Laurel Fig)	Ficus thonningii	2	5.1	3.706	4.044	1.719
Ficus (Indian Laurel Fig)	Ficus thonningii	3	7.9	9.230	13.274	5.642
Ficus (Indian Laurel Fig)	Ficus thonningii	4	10.1	14.628	27.901	11.860
Ficus (Indian Laurel Fig)	Ficus thonningii	5	12	19.287	47.188	20.058
Ficus (Indian Laurel Fig)	Ficus thonningii	6	13.7	23.175	70.363	29.909
Ficus (Indian Laurel Fig)	Ficus thonningii	7	15.1	26.394	96.757	41.128
Ficus (Indian Laurel Fig)	Ficus thonningii	8	16.3	29.063	125.820	53.482
Ficus (Indian Laurel Fig)	Ficus thonningii	9	17.4	31.285	157.105	66.780
Ficus (Indian Laurel Fig)	Ficus thonningii	10	18.4	33.143	190.248	80.868
Ficus (Indian Laurel Fig)	Ficus thonningii	11	19.4	34.704	224.952	95.620
Ficus (Indian Laurel Fig)	Ficus thonningii	12	20.2	36.022	260.974	110.932
Ficus (Indian Laurel Fig)	Ficus thonningii	13	21.0	37.138	298.112	126.718
Ficus (Indian Laurel Fig)	Ficus thonningii	14	21.7	38.086	336.198	142.907
Ficus (Indian Laurel Fig)	Ficus thonningii	15	22.4	38.893	375.091	159.439
Ficus (Indian Laurel Fig)	Ficus thonningii	16	23.0	39.581	414.673	176.264
Ficus (Indian Laurel Fig)	Ficus thonningii	17	23.6	40.168	454.841	193.338
Ficus (Indian Laurel Fig)	Ficus thonningii	18	24.2	40.668	495.509	210.625
Ficus (Indian Laurel Fig)	Ficus thonningii	19	24.7	41.094	536.602	228.092

CTCC Tree Sequestration Data

Generic Name	CTCC Species	Age (Years)	Height (ft)	CO2 Sequestration (kg/tree/year)	Total CO2 Stored (kg/tree)	Above Ground Biomass (kg/tree)
Ficus (Indian Laurel Fig)	Ficus thonningii	20	25.2	41.455	578.057	245.714
Ficus (Indian Laurel Fig)	Ficus thonningii	21	25.7	41.761	619.818	263.465
Ficus (Indian Laurel Fig)	Ficus thonningii	22	26.1	42.018	661.836	281.326
Ficus (Indian Laurel Fig)	Ficus thonningii	23	26.6	42.233	704.070	299.278
Ficus (Indian Laurel Fig)	Ficus thonningii	24	27.0	42.411	746.481	317.305
Ficus (Indian Laurel Fig)	Ficus thonningii	25	27.4	42.557	789.038	335.395
Ficus (Indian Laurel Fig)	Ficus thonningii	26	27.8	42.674	831.712	353.534
Ficus (Indian Laurel Fig)	Ficus thonningii	27	28.1	42.765	874.477	371.712
Ficus (Indian Laurel Fig)	Ficus thonningii	28	28.5	42.834	917.310	389.919
Ficus (Indian Laurel Fig)	Ficus thonningii	29	28.8	42.883	960.193	408.147
Ficus (Indian Laurel Fig)	Ficus thonningii	30	29.1	42.914	1003.107	426.389
Ficus (Indian Laurel Fig)	Ficus thonningii	31	29.5	42.929	1046.036	444.636
Ficus (Indian Laurel Fig)	Ficus thonningii	32	29.8	42.930	1088.966	462.885
Ficus (Indian Laurel Fig)	Ficus thonningii	33	30.1	42.919	1131.885	481.128
Ficus (Indian Laurel Fig)	Ficus thonningii	34	30.4	42.896	1174.782	499.362
Ficus (Indian Laurel Fig)	Ficus thonningii	35	30.6	42.864	1217.646	517.582
Ficus (Indian Laurel Fig)	Ficus thonningii	36	30.9	42.822	1260.468	535.785
Ficus (Indian Laurel Fig)	Ficus thonningii	37	31.2	42.772	1303.240	553.966
Ficus (Indian Laurel Fig)	Ficus thonningii	38	31.4	42.715	1345.955	572.123
Ficus (Indian Laurel Fig)	Ficus thonningii	39	31.7	42.652	1388.607	590.252
Ficus (Indian Laurel Fig)	Ficus thonningii	40	31.9	42.582	1431.189	608.353
Ficus (Indian Laurel Fig)	Ficus thonningii	41	32.2	42.508	1473.697	626.421
Ficus (Indian Laurel Fig)	Ficus thonningii	42	32.4	42.428	1516.125	644.456
Ficus (Indian Laurel Fig)	Ficus thonningii	43	32.6	42.345	1558.470	662.456
Ficus (Indian Laurel Fig)	Ficus thonningii	44	32.8	42.257	1600.727	680.418
Ficus (Indian Laurel Fig)	Ficus thonningii	45	33.1	42.167	1642.894	698.342
Ficus (Indian Laurel Fig)	Ficus thonningii	46	33.3	42.073	1684.967	716.226
Ficus (Indian Laurel Fig)	Ficus thonningii	47	33.5	41.977	1726.944	734.069
Pine	Pinus canariensis	1	10.5	1.156	1.156	0.491
Pine	Pinus canariensis	2	20.3	9.683	10.839	4.607
Pine	Pinus canariensis	3	26.8	21.843	32.682	13.892
Pine	Pinus canariensis	4	31.6	33.113	65.795	27.967
Pine	Pinus canariensis	5	35.3	42.612	108.407	46.080
Pine	Pinus canariensis	6	38.3	50.435	158.842	67.519
Pine	Pinus canariensis	7	40.8	56.863	215.705	91.689
Pine	Pinus canariensis	8	42.9	62.164	277.870	118.114
Pine	Pinus canariensis	9	44.7	66.561	344.431	146.407
Pine	Pinus canariensis	10	46.4	70.229	414.660	176.259
Pine	Pinus canariensis	11	47.9	73.305	487.965	207.418
Pine	Pinus canariensis	12	49.2	75.898	563.863	239.680
Pine	Pinus canariensis	13	50.4	78.091	641.954	272.874
Pine	Pinus canariensis	14	51.5	79.952	721.907	306.859
Pine	Pinus canariensis	15	52.5	81.535	803.441	341.517
Pine	Pinus canariensis	16	53.5	82.883	886.324	376.748
Pine	Pinus canariensis	17	54.3	84.031	970.355	412.467
Pine	Pinus canariensis	18	55.2	85.009	1055.364	448.602
Pine	Pinus canariensis	19	55.9	85.841	1141.205	485.090
Pine	Pinus canariensis	20	56.6	86.546	1227.751	521.878
Pine	Pinus canariensis	21	57.3	87.143	1314.894	558.919

CTCC Tree Sequestration Data

Generic Name	CTCC Species	Age (Years)	Height (ft)	CO2 Sequestration (kg/tree/year)	Total CO2 Stored (kg/tree)	Above Ground Biomass (kg/tree)
Pine	Pinus canariensis	22	58	87.644	1402.537	596.174
Pine	Pinus canariensis	23	58.6	88.061	1490.599	633.606
Pine	Pinus canariensis	24	59.2	88.407	1579.005	671.185
Pine	Pinus canariensis	25	59.7	88.688	1667.693	708.883
Pine	Pinus canariensis	26	60.3	88.912	1756.605	746.677
Pine	Pinus canariensis	27	60.8	89.087	1845.692	784.545
Pine	Pinus canariensis	28	61.3	89.217	1934.909	822.468
Pine	Pinus canariensis	29	61.7	89.309	2024.218	860.431
Pine	Pinus canariensis	30	62.2	89.365	2113.583	898.417
Pine	Pinus canariensis	31	62.6	89.390	2202.974	936.414
Pine	Pinus canariensis	32	63	89.388	2292.362	974.410
Pine	Pinus canariensis	33	63.5	89.361	2381.722	1012.394
Pine	Pinus canariensis	34	63.8	89.312	2471.034	1050.358
Pine	Pinus canariensis	35	64.2	89.242	2560.276	1088.292
Pine	Pinus canariensis	36	64.6	89.155	2649.432	1126.189
Pine	Pinus canariensis	37	64.9	89.053	2738.484	1164.042
Pine	Pinus canariensis	38	65.3	88.935	2827.419	1201.846
Pine	Pinus canariensis	39	65.6	88.805	2916.225	1239.594
Pine	Pinus canariensis	40	65.9	88.664	3004.888	1277.282
Pine	Pinus canariensis	41	66.2	88.512	3093.400	1314.906
Pine	Pinus canariensis	42	66.6	88.351	3181.751	1352.461
Pine	Pinus canariensis	43	66.8	88.181	3269.932	1389.944
Pine	Pinus canariensis	44	67.1	88.004	3357.937	1427.352
Pine	Pinus canariensis	45	67.4	87.821	3445.758	1464.682
Pine	Pinus canariensis	46	67.7	87.631	3533.389	1501.931
Pine	Pinus canariensis	47	68	87.437	3620.826	1539.098
Trumpet	Golden Trumpet	1	3.6	0.022	0.022	0.000
Trumpet	Golden Trumpet	2	3.6	0.714	0.737	0.313
Trumpet	Golden Trumpet	3	6.5	2.478	3.214	1.366
Trumpet	Golden Trumpet	4	9.1	4.875	8.089	3.438
Trumpet	Golden Trumpet	5	11.4	7.662	15.751	6.695
Trumpet	Golden Trumpet	6	13.6	10.710	26.461	11.248
Trumpet	Golden Trumpet	7	15.6	13.935	40.396	17.171
Trumpet	Golden Trumpet	8	17.4	17.283	57.679	24.517
Trumpet	Golden Trumpet	9	19.1	20.713	78.391	33.322
Trumpet	Golden Trumpet	10	20.7	24.195	102.586	43.606
Trumpet	Golden Trumpet	11	22.2	27.705	130.291	55.383
Trumpet	Golden Trumpet	12	23.5	31.225	161.516	68.655
Trumpet	Golden Trumpet	13	24.9	34.740	196.256	83.422
Trumpet	Golden Trumpet	14	26.1	38.237	234.493	99.676
Trumpet	Golden Trumpet	15	27.3	41.704	276.198	117.403
Trumpet	Golden Trumpet	16	28.4	45.135	321.332	136.588
Trumpet	Golden Trumpet	17	29.5	48.519	369.852	157.212
Trumpet	Golden Trumpet	18	30.5	51.852	421.704	179.253
Trumpet	Golden Trumpet	19	31.5	55.128	476.832	202.686
Trumpet	Golden Trumpet	20	32.5	58.341	535.173	227.485
Trumpet	Golden Trumpet	21	33.4	61.487	596.660	253.621
Trumpet	Golden Trumpet	22	34.3	64.564	661.224	281.065
Trumpet	Golden Trumpet	23	35.1	67.566	728.790	309.785

CTCC Tree Sequestration Data

Generic Name	CTCC Species	Age (Years)	Height (ft)	CO2 Sequestration (kg/tree/year)	Total CO2 Stored (kg/tree)	Above Ground Biomass (kg/tree)
Trumpet	Golden Trumpet	24	35.9	70.493	799.283	339.750
Trumpet	Golden Trumpet	25	36.7	73.340	872.624	370.924
Trumpet	Golden Trumpet	26	37.5	76.107	948.731	403.275
Trumpet	Golden Trumpet	27	38.2	78.791	1027.522	436.767
Trumpet	Golden Trumpet	28	38.9	81.390	1108.912	471.363
Trumpet	Golden Trumpet	29	39.6	83.904	1192.816	507.028
Trumpet	Golden Trumpet	30	40.3	86.331	1279.147	543.725
Willow	Chilopsis linearis	1	2.3	0.070	0.070	0.030
Willow	Chilopsis linearis	2	4.5	0.394	0.464	0.197
Willow	Chilopsis linearis	3	6.3	0.896	1.360	0.578
Willow	Chilopsis linearis	4	7.8	1.519	2.879	1.224
Willow	Chilopsis linearis	5	9.2	2.238	5.117	2.175
Willow	Chilopsis linearis	6	10.4	3.035	8.152	3.465
Willow	Chilopsis linearis	7	11.5	3.901	12.054	5.124
Willow	Chilopsis linearis	8	12.5	4.827	16.881	7.175
Willow	Chilopsis linearis	9	13.4	5.807	22.688	9.644
Willow	Chilopsis linearis	10	14.2	6.837	29.526	12.550
Willow	Chilopsis linearis	11	15	7.913	37.439	15.914
Willow	Chilopsis linearis	12	15.7	9.031	46.470	19.753
Willow	Chilopsis linearis	13	16.4	10.189	56.660	24.084
Willow	Chilopsis linearis	14	17	11.385	68.044	28.923
Willow	Chilopsis linearis	15	17.6	12.615	80.660	34.286
Willow	Chilopsis linearis	16	18.2	13.880	94.539	40.186
Willow	Chilopsis linearis	17	18.8	15.176	109.715	46.636
Willow	Chilopsis linearis	18	19.3	16.502	126.217	53.651
Willow	Chilopsis linearis	19	19.8	17.858	144.075	61.242
Willow	Chilopsis linearis	20	20.3	19.242	163.317	69.421
Willow	Chilopsis linearis	21	20.7	20.653	183.970	78.200
Willow	Chilopsis linearis	22	21.2	22.089	206.059	87.589
Willow	Chilopsis linearis	23	21.6	23.551	229.611	97.600
Willow	Chilopsis linearis	24	22	25.037	254.648	108.243
Willow	Chilopsis linearis	25	22.4	26.547	281.195	119.527
Willow	Chilopsis linearis	26	22.8	28.080	309.275	131.463
Willow	Chilopsis linearis	27	23.2	29.634	338.909	144.059
Willow	Chilopsis linearis	28	23.6	31.210	370.119	157.326
Willow	Chilopsis linearis	29	23.9	32.807	402.926	171.271
Willow	Chilopsis linearis	30	24.3	34.425	437.351	185.904

CalEEMod Appendix D Default Data - Off-Road Equipment Emission Factors

Year	EquipmentType	Low Hp	High Hp	ROGg/bhp-hr	CO,g/bhp-hr	NOX,g/bhp-hr	SO2,g/bhp-hr	PM10,g/bhp-hr	PM2_5,g/bhp-hr	CO2,g/bhp-hr	CH4,g/bhp-hr
2017	AerialLifts	6	15	0.209	3.16913	3.46956	0.005	0.079	0.073	554.2451	0.17
2017	AerialLifts	16	25	0.209	3.16913	3.46956	0.005	0.079	0.073	554.2451	0.17
2017	AerialLifts	26	50	0.209	3.16913	3.46956	0.005	0.079	0.073	554.2451	0.17
2017	AerialLifts	51	120	0.143	3.18429	2.36368	0.005	0.083	0.077	498.3428	0.153
2017	AerialLifts	251	500	0.246	0.99722	4.6577	0.005	0.105	0.096	498.2798	0.153
2017	AerialLifts	501	750	0.239	1.059	2.68	0.005	0.079	0.079	568.299	0.021
2018	AerialLifts	6	15	0.182	3.11639	3.2101	0.005	0.054	0.05	545.4939	0.17
2018	AerialLifts	16	25	0.182	3.11639	3.2101	0.005	0.054	0.05	545.4939	0.17
2018	AerialLifts	26	50	0.182	3.11639	3.2101	0.005	0.054	0.05	545.4939	0.17
2018	AerialLifts	51	120	0.122	3.16685	2.0636	0.005	0.057	0.052	490.4742	0.153
2018	AerialLifts	251	500	0.062	0.93655	0.63368	0.005	0.009	0.008	490.4122	0.153
2018	AerialLifts	501	750	0.225	1.037	2.385	0.005	0.071	0.071	568.299	0.02
2019	AerialLifts	6	15	0.172	3.11451	3.07945	0.005	0.042	0.038	536.7427	0.17
2019	AerialLifts	16	25	0.172	3.11451	3.07945	0.005	0.042	0.038	536.7427	0.17
2019	AerialLifts	26	50	0.172	3.11451	3.07945	0.005	0.042	0.038	536.7427	0.17
2019	AerialLifts	51	120	0.118	3.17254	1.97658	0.005	0.049	0.045	482.6056	0.153
2019	AerialLifts	251	500	0.066	0.94139	0.63586	0.005	0.009	0.008	482.5446	0.153
2019	AerialLifts	501	750	0.212	1.023	2.117	0.005	0.064	0.064	568.299	0.019
2020	AerialLifts	6	15	0.168	3.09942	2.95486	0.005	0.031	0.028	525.0743	0.17
2020	AerialLifts	16	25	0.168	3.09942	2.95486	0.005	0.031	0.028	525.0743	0.17
2020	AerialLifts	26	50	0.168	3.09942	2.95486	0.005	0.031	0.028	525.0743	0.17
2020	AerialLifts	51	120	0.115	3.1768	1.86859	0.005	0.042	0.038	472.1142	0.153
2020	AerialLifts	251	500	0.069	0.94623	0.63803	0.005	0.009	0.008	472.0545	0.153
2020	AerialLifts	501	750	0.2	1.013	1.868	0.005	0.057	0.057	568.299	0.018
2021	AerialLifts	6	15	0.165	3.11369	2.92238	0.005	0.027	0.024	525.0743	0.17
2021	AerialLifts	16	25	0.165	3.11369	2.92238	0.005	0.027	0.024	525.0743	0.17
2021	AerialLifts	26	50	0.165	3.11369	2.92238	0.005	0.027	0.024	525.0743	0.17
2021	AerialLifts	51	120	0.109	3.17624	1.74368	0.005	0.033	0.031	472.1142	0.153
2021	AerialLifts	251	500	0.072	0.95107	0.64021	0.005	0.009	0.008	472.0545	0.153
2021	AerialLifts	501	750	0.187	1.004	1.61	0.005	0.05	0.05	568.299	0.016
2022	AerialLifts	6	15	0.162	3.11231	2.90676	0.005	0.024	0.022	525.0743	0.17
2022	AerialLifts	16	25	0.162	3.11231	2.90676	0.005	0.024	0.022	525.0743	0.17
2022	AerialLifts	26	50	0.162	3.11231	2.90676	0.005	0.024	0.022	525.0743	0.17
2022	AerialLifts	51	120	0.105	3.17602	1.62659	0.005	0.03	0.028	472.1142	0.153
2022	AerialLifts	251	500	0.075	0.95591	0.64238	0.005	0.009	0.008	472.0545	0.153
2022	AerialLifts	501	750	0.177	0.998	1.424	0.005	0.044	0.044	568.299	0.016
2023	AerialLifts	6	15	0.163	3.12196	2.89722	0.005	0.023	0.021	525.0743	0.17
2023	AerialLifts	16	25	0.163	3.12196	2.89722	0.005	0.023	0.021	525.0743	0.17
2023	AerialLifts	26	50	0.163	3.12196	2.89722	0.005	0.023	0.021	525.0743	0.17
2023	AerialLifts	51	120	0.1	3.17029	1.5481	0.005	0.027	0.025	472.1142	0.153
2023	AerialLifts	251	500	0.079	0.96074	0.64456	0.005	0.009	0.008	472.0545	0.153
2023	AerialLifts	501	750	0.169	0.995	1.265	0.005	0.038	0.038	568.299	0.015
2024	AerialLifts	6	15	0.159	3.11285	2.88821	0.005	0.022	0.02	525.0743	0.17
2024	AerialLifts	16	25	0.159	3.11285	2.88821	0.005	0.022	0.02	525.0743	0.17
2024	AerialLifts	26	50	0.159	3.11285	2.88821	0.005	0.022	0.02	525.0743	0.17
2024	AerialLifts	51	120	0.1	3.17255	1.52789	0.005	0.026	0.024	472.1142	0.153
2024	AerialLifts	251	500	0.082	0.96558	0.64674	0.005	0.009	0.009	472.0545	0.153
2024	AerialLifts	501	750	0.161	0.991	1.115	0.005	0.033	0.033	568.299	0.014
2025	AerialLifts	6	15	0.154	3.08837	2.87882	0.005	0.021	0.019	525.0743	0.17
2025	AerialLifts	16	25	0.154	3.08837	2.87882	0.005	0.021	0.019	525.0743	0.17

CalEEMod Appendix D Default Data - Off-Road Equipment Emission Factors

Year	EquipmentType	Low Hp	High Hp	ROGg/bhp-hr	CO,g/bhp-hr	NOX,g/bhp-hr	SO2,g/bhp-hr	PM10,g/bhp-hr	PM2_5,g/bhp-hr	CO2,g/bhp-hr	CH4,g/bhp-hr
2025	AerialLifts	26	50	0.154	3.08837	2.87882	0.005	0.021	0.019	525.0743	0.17
2025	AerialLifts	51	120	0.099	3.16742	1.51077	0.005	0.026	0.024	472.1142	0.153
2025	AerialLifts	251	500	0.085	0.97042	0.64891	0.005	0.009	0.009	472.0545	0.153
2025	AerialLifts	501	750	0.153	0.989	0.974	0.005	0.028	0.028	568.299	0.013
2030	AerialLifts	6	15	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059
2030	AerialLifts	16	25	0.685	2.339	4.332	0.007	0.162	0.162	568.299	0.061
2030	AerialLifts	26	50	0.339	3.764	3.135	0.007	0.04	0.04	568.3	0.03
2030	AerialLifts	51	120	0.188	3.352	1.657	0.006	0.036	0.036	568.299	0.017
2030	AerialLifts	251	500	0.126	0.986	0.479	0.005	0.016	0.016	568.299	0.011
2030	AerialLifts	501	750	0.126	0.986	0.485	0.005	0.016	0.016	568.299	0.011
2035	AerialLifts	6	15	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059
2035	AerialLifts	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2035	AerialLifts	26	50	0.297	3.726	3.017	0.007	0.019	0.019	568.299	0.026
2035	AerialLifts	51	120	0.166	3.345	1.466	0.006	0.017	0.017	568.299	0.014
2035	AerialLifts	251	500	0.116	0.986	0.33	0.005	0.011	0.011	568.299	0.01
2035	AerialLifts	501	750	0.116	0.986	0.33	0.005	0.011	0.011	568.299	0.01
2040	AerialLifts	6	15	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059
2040	AerialLifts	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2040	AerialLifts	26	50	0.295	3.723	2.966	0.007	0.013	0.013	568.299	0.026
2040	AerialLifts	51	120	0.161	3.344	1.407	0.006	0.012	0.012	568.299	0.014
2040	AerialLifts	251	500	0.112	0.986	0.279	0.005	0.009	0.009	568.299	0.01
2040	AerialLifts	501	750	0.112	0.986	0.279	0.005	0.009	0.009	568.299	0.01
2017	AirCompressors	6	15	0.786	3.599	4.887	0.008	0.272	0.272	568.299	0.07
2017	AirCompressors	16	25	0.83	2.564	4.729	0.007	0.243	0.243	568.299	0.074
2017	AirCompressors	26	50	1.481	5.604	4.871	0.007	0.371	0.371	568.299	0.133
2017	AirCompressors	51	120	0.671	3.772	4.412	0.006	0.35	0.35	568.299	0.06
2017	AirCompressors	121	175	0.477	3.207	3.627	0.006	0.194	0.194	568.299	0.043
2017	AirCompressors	176	250	0.339	1.162	3.163	0.006	0.098	0.098	568.299	0.03
2017	AirCompressors	251	500	0.321	1.123	2.755	0.005	0.092	0.092	568.299	0.029
2017	AirCompressors	501	750	0.323	1.123	2.845	0.005	0.094	0.094	568.299	0.029
2017	AirCompressors	751	1000	0.362	1.246	4.583	0.005	0.121	0.121	568.299	0.032
2018	AirCompressors	6	15	0.766	3.58	4.762	0.008	0.256	0.256	568.299	0.069
2018	AirCompressors	16	25	0.807	2.531	4.661	0.007	0.232	0.232	568.3	0.072
2018	AirCompressors	26	50	1.3	5.439	4.707	0.007	0.329	0.329	568.299	0.117
2018	AirCompressors	51	120	0.603	3.744	4.05	0.006	0.304	0.304	568.3	0.054
2018	AirCompressors	121	175	0.435	3.205	3.228	0.006	0.17	0.17	568.299	0.039
2018	AirCompressors	176	250	0.321	1.146	2.797	0.006	0.087	0.087	568.3	0.029
2018	AirCompressors	251	500	0.307	1.101	2.465	0.005	0.083	0.083	568.299	0.027
2018	AirCompressors	501	750	0.309	1.101	2.533	0.005	0.084	0.084	568.299	0.027
2018	AirCompressors	751	1000	0.343	1.21	4.325	0.005	0.111	0.111	568.299	0.03
2019	AirCompressors	6	15	0.748	3.562	4.647	0.008	0.241	0.241	568.299	0.067
2019	AirCompressors	16	25	0.787	2.501	4.596	0.007	0.222	0.222	568.299	0.071
2019	AirCompressors	26	50	1.129	5.283	4.546	0.007	0.287	0.287	568.299	0.101
2019	AirCompressors	51	120	0.538	3.718	3.706	0.006	0.26	0.26	568.299	0.048
2019	AirCompressors	121	175	0.401	3.204	2.874	0.006	0.15	0.15	568.299	0.036
2019	AirCompressors	176	250	0.304	1.132	2.469	0.006	0.078	0.078	568.299	0.027
2019	AirCompressors	251	500	0.293	1.086	2.193	0.005	0.075	0.075	568.299	0.026
2019	AirCompressors	501	750	0.294	1.086	2.247	0.005	0.076	0.076	568.299	0.026
2019	AirCompressors	751	1000	0.324	1.182	4.073	0.005	0.102	0.102	568.299	0.029
2020	AirCompressors	6	15	0.731	3.546	4.542	0.008	0.227	0.227	568.299	0.066

CalEEMod Appendix D Default Data - Off-Road Equipment Emission Factors

Year	EquipmentType	Low Hp	High Hp	ROGg/bhp-hr	CO ₂ g/bhp-hr	NOX ₂ g/bhp-hr	SO ₂ g/bhp-hr	PM10 ₂ g/bhp-hr	PM2.5g/bhp-hr	CO ₂ g/bhp-hr	CH ₄ g/bhp-hr
2020	AirCompressors	16	25	0.769	2.473	4.538	0.007	0.212	0.212	568.3	0.069
2020	AirCompressors	26	50	1.001	5.164	4.397	0.007	0.25	0.25	568.299	0.09
2020	AirCompressors	51	120	0.489	3.698	3.4	0.006	0.224	0.224	568.299	0.044
2020	AirCompressors	121	175	0.374	3.203	2.558	0.006	0.133	0.133	568.299	0.033
2020	AirCompressors	176	250	0.288	1.121	2.172	0.006	0.069	0.069	568.299	0.026
2020	AirCompressors	251	500	0.279	1.076	1.935	0.005	0.067	0.067	568.299	0.025
2020	AirCompressors	501	750	0.28	1.076	1.982	0.005	0.067	0.067	568.299	0.025
2020	AirCompressors	751	1000	0.306	1.158	3.828	0.005	0.093	0.093	568.3	0.027
2021	AirCompressors	6	15	0.717	3.531	4.462	0.008	0.214	0.214	568.299	0.064
2021	AirCompressors	16	25	0.752	2.446	4.497	0.007	0.201	0.201	568.299	0.067
2021	AirCompressors	26	50	0.887	5.021	4.221	0.007	0.212	0.212	568.299	0.08
2021	AirCompressors	51	120	0.442	3.67	3.083	0.006	0.19	0.19	568.299	0.039
2021	AirCompressors	121	175	0.343	3.192	2.218	0.006	0.115	0.115	568.299	0.03
2021	AirCompressors	176	250	0.268	1.108	1.859	0.006	0.06	0.06	568.299	0.024
2021	AirCompressors	251	500	0.261	1.064	1.663	0.005	0.058	0.058	568.299	0.023
2021	AirCompressors	501	750	0.262	1.064	1.699	0.005	0.058	0.058	568.299	0.023
2021	AirCompressors	751	1000	0.284	1.134	3.565	0.005	0.082	0.082	568.3	0.025
2022	AirCompressors	6	15	0.707	3.519	4.408	0.008	0.203	0.203	568.299	0.063
2022	AirCompressors	16	25	0.739	2.426	4.47	0.007	0.193	0.193	568.299	0.066
2022	AirCompressors	26	50	0.814	4.959	4.093	0.007	0.183	0.183	568.299	0.073
2022	AirCompressors	51	120	0.413	3.662	2.844	0.006	0.165	0.165	568.299	0.037
2022	AirCompressors	121	175	0.322	3.194	1.959	0.006	0.101	0.101	568.299	0.029
2022	AirCompressors	176	250	0.255	1.102	1.617	0.006	0.052	0.052	568.3	0.023
2022	AirCompressors	251	500	0.249	1.059	1.472	0.005	0.051	0.051	568.299	0.022
2022	AirCompressors	501	750	0.25	1.059	1.502	0.005	0.051	0.051	568.299	0.022
2022	AirCompressors	751	1000	0.269	1.117	3.378	0.005	0.075	0.075	568.3	0.024
2023	AirCompressors	6	15	0.698	3.508	4.359	0.008	0.194	0.194	568.299	0.063
2023	AirCompressors	16	25	0.728	2.407	4.447	0.007	0.186	0.186	568.299	0.065
2023	AirCompressors	26	50	0.753	4.913	3.975	0.007	0.156	0.156	568.299	0.067
2023	AirCompressors	51	120	0.387	3.657	2.631	0.006	0.143	0.143	568.299	0.034
2023	AirCompressors	121	175	0.303	3.197	1.748	0.006	0.089	0.089	568.299	0.027
2023	AirCompressors	176	250	0.243	1.099	1.42	0.006	0.045	0.045	568.299	0.021
2023	AirCompressors	251	500	0.238	1.055	1.305	0.005	0.044	0.044	568.299	0.021
2023	AirCompressors	501	750	0.239	1.055	1.331	0.005	0.044	0.044	568.299	0.021
2023	AirCompressors	751	1000	0.256	1.102	3.221	0.005	0.068	0.068	568.299	0.023
2024	AirCompressors	6	15	0.69	3.499	4.316	0.008	0.188	0.188	568.3	0.062
2024	AirCompressors	16	25	0.718	2.39	4.426	0.007	0.181	0.181	568.3	0.064
2024	AirCompressors	26	50	0.702	4.88	3.864	0.007	0.135	0.135	568.299	0.063
2024	AirCompressors	51	120	0.365	3.655	2.461	0.006	0.123	0.123	568.299	0.032
2024	AirCompressors	121	175	0.286	3.202	1.561	0.006	0.077	0.077	568.299	0.025
2024	AirCompressors	176	250	0.232	1.096	1.247	0.006	0.039	0.039	568.299	0.02
2024	AirCompressors	251	500	0.228	1.053	1.148	0.005	0.038	0.038	568.299	0.02
2024	AirCompressors	501	750	0.228	1.053	1.171	0.005	0.038	0.038	568.299	0.02
2024	AirCompressors	751	1000	0.243	1.09	3.082	0.005	0.061	0.061	568.299	0.021
2025	AirCompressors	6	15	0.683	3.491	4.278	0.008	0.183	0.183	568.3	0.061
2025	AirCompressors	16	25	0.709	2.376	4.407	0.007	0.177	0.177	568.299	0.064
2025	AirCompressors	26	50	0.659	4.851	3.755	0.007	0.116	0.116	568.299	0.059
2025	AirCompressors	51	120	0.345	3.653	2.313	0.006	0.104	0.104	568.299	0.031
2025	AirCompressors	121	175	0.269	3.205	1.383	0.006	0.065	0.065	568.299	0.024
2025	AirCompressors	176	250	0.22	1.094	1.086	0.006	0.033	0.033	568.299	0.019

CalEEMod Appendix D Default Data - Off-Road Equipment Emission Factors

Year	EquipmentType	Low Hp	High Hp	ROGg/bhp-hr	CO ₂ g/bhp-hr	NOX ₂ g/bhp-hr	SO ₂ g/bhp-hr	PM10 ₂ g/bhp-hr	PM2.5g/bhp-hr	CO ₂ g/bhp-hr	CH ₄ g/bhp-hr
2025	AirCompressors	251	500	0.217	1.051	1.001	0.005	0.032	0.032	568.299	0.019
2025	AirCompressors	501	750	0.217	1.051	1.021	0.005	0.032	0.032	568.299	0.019
2025	AirCompressors	751	1000	0.231	1.079	2.954	0.005	0.055	0.055	568.299	0.02
2030	AirCompressors	6	15	0.663	3.47	4.164	0.008	0.166	0.166	568.299	0.059
2030	AirCompressors	16	25	0.687	2.34	4.347	0.007	0.165	0.165	568.299	0.061
2030	AirCompressors	26	50	0.506	4.712	3.34	0.007	0.046	0.046	568.299	0.045
2030	AirCompressors	51	120	0.264	3.63	1.729	0.006	0.041	0.041	568.299	0.023
2030	AirCompressors	121	175	0.193	3.205	0.633	0.006	0.027	0.027	568.299	0.017
2030	AirCompressors	176	250	0.179	1.092	0.529	0.006	0.018	0.018	568.299	0.016
2030	AirCompressors	251	500	0.178	1.048	0.499	0.005	0.017	0.017	568.299	0.016
2030	AirCompressors	501	750	0.178	1.048	0.505	0.005	0.017	0.017	568.3	0.016
2030	AirCompressors	751	1000	0.182	1.049	2.6	0.005	0.033	0.033	568.299	0.016
2035	AirCompressors	6	15	0.661	3.469	4.143	0.008	0.162	0.162	568.3	0.059
2035	AirCompressors	16	25	0.685	2.339	4.332	0.007	0.162	0.162	568.299	0.061
2035	AirCompressors	26	50	0.463	4.674	3.215	0.007	0.023	0.023	568.299	0.041
2035	AirCompressors	51	120	0.238	3.623	1.53	0.006	0.02	0.02	568.299	0.021
2035	AirCompressors	121	175	0.17	3.205	0.391	0.006	0.015	0.015	568.3	0.015
2035	AirCompressors	176	250	0.166	1.091	0.347	0.006	0.012	0.012	568.299	0.014
2035	AirCompressors	251	500	0.166	1.048	0.343	0.005	0.012	0.012	568.299	0.014
2035	AirCompressors	501	750	0.166	1.048	0.344	0.005	0.012	0.012	568.299	0.014
2035	AirCompressors	751	1000	0.167	1.048	2.473	0.005	0.026	0.026	568.299	0.015
2040	AirCompressors	6	15	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059
2040	AirCompressors	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.3	0.061
2040	AirCompressors	26	50	0.458	4.659	3.159	0.007	0.016	0.016	568.3	0.041
2040	AirCompressors	51	120	0.232	3.619	1.468	0.006	0.015	0.015	568.299	0.02
2040	AirCompressors	121	175	0.161	3.201	0.307	0.006	0.012	0.012	568.299	0.014
2040	AirCompressors	176	250	0.16	1.09	0.291	0.006	0.01	0.01	568.299	0.014
2040	AirCompressors	251	500	0.16	1.047	0.291	0.005	0.01	0.01	568.3	0.014
2040	AirCompressors	501	750	0.16	1.047	0.291	0.005	0.01	0.01	568.299	0.014
2040	AirCompressors	751	1000	0.16	1.047	2.439	0.005	0.023	0.023	568.299	0.014
2017	CementandMortarMixers	6	15	0.661	3.469	4.145	0.008	0.165	0.165	568.299	0.059
2017	CementandMortarMixers	16	25	0.767	2.466	4.567	0.007	0.216	0.216	568.299	0.069
2018	CementandMortarMixers	6	15	0.661	3.469	4.142	0.008	0.163	0.163	568.299	0.059
2018	CementandMortarMixers	16	25	0.749	2.44	4.504	0.007	0.205	0.205	568.299	0.067
2019	CementandMortarMixers	6	15	0.661	3.469	4.142	0.008	0.162	0.162	568.299	0.059
2019	CementandMortarMixers	16	25	0.735	2.417	4.469	0.007	0.196	0.196	568.299	0.066
2020	CementandMortarMixers	6	15	0.661	3.47	4.142	0.008	0.161	0.161	568.299	0.059
2020	CementandMortarMixers	16	25	0.723	2.397	4.442	0.007	0.187	0.187	568.299	0.065
2021	CementandMortarMixers	6	15	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059
2021	CementandMortarMixers	16	25	0.712	2.381	4.419	0.007	0.18	0.18	568.299	0.064
2022	CementandMortarMixers	6	15	0.661	3.47	4.142	0.008	0.161	0.161	568.299	0.059
2022	CementandMortarMixers	16	25	0.704	2.367	4.399	0.007	0.175	0.175	568.299	0.063
2023	CementandMortarMixers	6	15	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059
2023	CementandMortarMixers	16	25	0.697	2.356	4.382	0.007	0.172	0.172	568.299	0.062
2024	CementandMortarMixers	6	15	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059
2024	CementandMortarMixers	16	25	0.693	2.349	4.369	0.007	0.17	0.17	568.299	0.062
2025	CementandMortarMixers	6	15	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059
2025	CementandMortarMixers	16	25	0.689	2.344	4.357	0.007	0.168	0.168	568.299	0.062
2030	CementandMortarMixers	6	15	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059
2030	CementandMortarMixers	16	25	0.685	2.339	4.333	0.007	0.162	0.162	568.299	0.061

CalEEMod Appendix D Default Data - Off-Road Equipment Emission Factors

Year	EquipmentType	Low Hp	High Hp	ROGg/bhp-hr	CO,g/bhp-hr	NOX,g/bhp-hr	SO2,g/bhp-hr	PM10,g/bhp-hr	PM2_5,g/bhp-hr	CO2,g/bhp-hr	CH4,g/bhp-hr
2035	CementandMortarMixers	6	15	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059
2035	CementandMortarMixers	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2040	CementandMortarMixers	6	15	0.661	3.47	4.142	0.008	0.161	0.161	568.299	0.059
2040	CementandMortarMixers	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2017	Chainsaws	0	2	127.281	346.187	2.909	0.036	0.785	0.785	884.646	7.911
2017	Chainsaws	6	15	731.828	1580.963	13.963	0.174	2.834	2.834	4229.982	45.486
2018	Chainsaws	0	2	125.383	342.558	2.894	0.036	0.741	0.741	884.646	7.793
2018	Chainsaws	6	15	730.055	1578.05	13.946	0.174	2.775	2.775	4229.982	45.376
2019	Chainsaws	0	2	123.704	339.377	2.879	0.036	0.702	0.702	884.646	7.688
2019	Chainsaws	6	15	728.478	1575.487	13.93	0.174	2.723	2.723	4229.983	45.278
2020	Chainsaws	0	2	122.245	336.69	2.866	0.036	0.667	0.667	884.645	7.598
2020	Chainsaws	6	15	727.09	1573.283	13.915	0.174	2.675	2.675	4229.983	45.192
2021	Chainsaws	0	2	121.003	334.39	2.861	0.036	0.636	0.636	884.646	7.52
2021	Chainsaws	6	15	725.905	1571.385	13.911	0.174	2.633	2.633	4229.982	45.118
2022	Chainsaws	0	2	120.084	332.625	2.86	0.036	0.61	0.61	884.646	7.463
2022	Chainsaws	6	15	725.029	1569.887	13.911	0.174	2.597	2.597	4229.982	45.064
2023	Chainsaws	0	2	119.275	331.06	2.859	0.036	0.587	0.587	884.645	7.413
2023	Chainsaws	6	15	724.255	1568.544	13.911	0.174	2.566	2.566	4229.982	45.015
2024	Chainsaws	0	2	118.594	329.785	2.858	0.036	0.567	0.567	884.646	7.371
2024	Chainsaws	6	15	723.595	1567.432	13.91	0.174	2.538	2.538	4229.983	44.974
2025	Chainsaws	0	2	118.058	328.877	2.857	0.036	0.551	0.551	884.646	7.337
2025	Chainsaws	6	15	723.056	1566.61	13.909	0.174	2.515	2.515	4229.983	44.941
2030	Chainsaws	0	2	116.821	327.327	2.847	0.036	0.515	0.515	884.646	7.261
2030	Chainsaws	6	15	721.699	1565.005	13.9	0.174	2.463	2.463	4229.983	44.857
2035	Chainsaws	0	2	116.745	327.292	2.841	0.036	0.514	0.514	884.646	7.256
2035	Chainsaws	6	15	721.61	1564.967	13.892	0.174	2.462	2.462	4229.983	44.851
2040	Chainsaws	0	2	116.734	327.292	2.841	0.036	0.514	0.514	884.646	7.255
2040	Chainsaws	6	15	721.596	1564.968	13.892	0.174	2.462	2.462	4229.983	44.85
2017	Chippers/StumpGrinders	6	15	13.257	531.934	8.832	0.024	7.049	7.049	858.88	0.738
2017	Chippers/StumpGrinders	16	25	13.666	560.455	8.137	0.021	7.049	7.049	858.879	0.761
2018	Chippers/StumpGrinders	6	15	13.054	528.594	8.866	0.024	7.078	7.078	858.879	0.727
2018	Chippers/StumpGrinders	16	25	13.521	557.812	8.176	0.021	7.078	7.078	858.879	0.753
2019	Chippers/StumpGrinders	6	15	12.927	526.488	8.885	0.024	7.103	7.103	858.879	0.72
2019	Chippers/StumpGrinders	16	25	13.43	556.111	8.197	0.021	7.103	7.103	858.879	0.748
2020	Chippers/StumpGrinders	6	15	12.837	524.97	8.898	0.024	7.126	7.126	858.879	0.715
2020	Chippers/StumpGrinders	16	25	13.364	554.86	8.21	0.021	7.126	7.126	858.879	0.744
2021	Chippers/StumpGrinders	6	15	12.749	523.609	8.907	0.024	7.146	7.146	858.879	0.71
2021	Chippers/StumpGrinders	16	25	13.299	553.749	8.22	0.021	7.146	7.146	858.879	0.741
2022	Chippers/StumpGrinders	6	15	12.676	522.437	8.918	0.024	7.161	7.161	858.879	0.706
2022	Chippers/StumpGrinders	16	25	13.245	552.799	8.232	0.021	7.161	7.161	858.88	0.738
2023	Chippers/StumpGrinders	6	15	12.604	521.328	8.93	0.024	7.173	7.173	858.879	0.702
2023	Chippers/StumpGrinders	16	25	13.193	551.905	8.244	0.021	7.173	7.173	858.879	0.735
2024	Chippers/StumpGrinders	6	15	12.541	520.397	8.94	0.024	7.183	7.183	858.879	0.699
2024	Chippers/StumpGrinders	16	25	13.147	551.168	8.255	0.021	7.183	7.183	858.879	0.733
2025	Chippers/StumpGrinders	6	15	12.482	519.536	8.949	0.024	7.191	7.191	858.879	0.696
2025	Chippers/StumpGrinders	16	25	13.104	550.485	8.265	0.021	7.191	7.191	858.879	0.73
2030	Chippers/StumpGrinders	6	15	12.282	516.861	8.977	0.024	7.199	7.199	858.879	0.685
2030	Chippers/StumpGrinders	16	25	12.957	548.436	8.297	0.021	7.199	7.199	858.879	0.722
2035	Chippers/StumpGrinders	6	15	12.235	516.011	8.982	0.024	7.199	7.199	858.879	0.683
2035	Chippers/StumpGrinders	16	25	12.921	547.707	8.303	0.021	7.199	7.199	858.879	0.721

CalEEMod Appendix D Default Data - Off-Road Equipment Emission Factors

Year	EquipmentType	Low Hp	High Hp	ROGg/bhp-hr	CO,g/bhp-hr	NOX,g/bhp-hr	SO2,g/bhp-hr	PM10,g/bhp-hr	PM2_5,g/bhp-hr	CO2,g/bhp-hr	CH4,g/bhp-hr
2040	Chippers/StumpGrinders	6	15	12.225	515.57	8.979	0.024	7.199	7.199	858.879	0.682
2040	Chippers/StumpGrinders	16	25	12.912	547.24	8.3	0.021	7.199	7.199	858.879	0.721
2017	Concrete/IndustrialSaws	16	25	0.685	2.34	4.332	0.007	0.161	0.161	568.299	0.061
2017	Concrete/IndustrialSaws	26	50	1.175	4.894	4.652	0.007	0.313	0.313	568.299	0.106
2017	Concrete/IndustrialSaws	51	120	0.557	3.595	4.086	0.006	0.294	0.294	568.299	0.05
2017	Concrete/IndustrialSaws	121	175	0.395	3.073	3.316	0.006	0.165	0.165	568.299	0.035
2018	Concrete/IndustrialSaws	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2018	Concrete/IndustrialSaws	26	50	1.032	4.766	4.492	0.007	0.277	0.277	568.299	0.093
2018	Concrete/IndustrialSaws	51	120	0.498	3.571	3.754	0.006	0.256	0.256	568.299	0.044
2018	Concrete/IndustrialSaws	121	175	0.359	3.072	2.945	0.006	0.145	0.145	568.299	0.032
2019	Concrete/IndustrialSaws	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2019	Concrete/IndustrialSaws	26	50	0.899	4.645	4.338	0.007	0.242	0.242	568.299	0.081
2019	Concrete/IndustrialSaws	51	120	0.443	3.55	3.441	0.006	0.22	0.22	568.3	0.04
2019	Concrete/IndustrialSaws	121	175	0.33	3.072	2.618	0.006	0.128	0.128	568.299	0.029
2020	Concrete/IndustrialSaws	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2020	Concrete/IndustrialSaws	26	50	0.798	4.552	4.196	0.007	0.212	0.212	568.299	0.072
2020	Concrete/IndustrialSaws	51	120	0.401	3.535	3.163	0.006	0.19	0.19	568.299	0.036
2020	Concrete/IndustrialSaws	121	175	0.306	3.072	2.324	0.006	0.114	0.114	568.299	0.027
2021	Concrete/IndustrialSaws	16	25	0.685	2.34	4.332	0.007	0.161	0.161	568.299	0.061
2021	Concrete/IndustrialSaws	26	50	0.722	4.481	4.063	0.007	0.184	0.184	568.3	0.065
2021	Concrete/IndustrialSaws	51	120	0.369	3.523	2.913	0.006	0.166	0.166	568.299	0.033
2021	Concrete/IndustrialSaws	121	175	0.286	3.072	2.055	0.006	0.101	0.101	568.299	0.025
2022	Concrete/IndustrialSaws	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2022	Concrete/IndustrialSaws	26	50	0.66	4.422	3.936	0.007	0.158	0.158	568.3	0.059
2022	Concrete/IndustrialSaws	51	120	0.343	3.514	2.686	0.006	0.144	0.144	568.299	0.031
2022	Concrete/IndustrialSaws	121	175	0.267	3.072	1.806	0.006	0.089	0.089	568.3	0.024
2023	Concrete/IndustrialSaws	16	25	0.685	2.34	4.332	0.007	0.161	0.161	568.299	0.061
2023	Concrete/IndustrialSaws	26	50	0.606	4.372	3.815	0.007	0.134	0.134	568.299	0.054
2023	Concrete/IndustrialSaws	51	120	0.32	3.507	2.478	0.006	0.123	0.123	568.3	0.028
2023	Concrete/IndustrialSaws	121	175	0.25	3.072	1.599	0.006	0.077	0.077	568.299	0.022
2024	Concrete/IndustrialSaws	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2024	Concrete/IndustrialSaws	26	50	0.561	4.33	3.701	0.007	0.115	0.115	568.3	0.05
2024	Concrete/IndustrialSaws	51	120	0.3	3.5	2.315	0.006	0.106	0.106	568.299	0.027
2024	Concrete/IndustrialSaws	121	175	0.235	3.072	1.418	0.006	0.067	0.067	568.299	0.021
2025	Concrete/IndustrialSaws	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2025	Concrete/IndustrialSaws	26	50	0.525	4.297	3.592	0.007	0.099	0.099	568.299	0.047
2025	Concrete/IndustrialSaws	51	120	0.283	3.495	2.176	0.006	0.089	0.089	568.3	0.025
2025	Concrete/IndustrialSaws	121	175	0.22	3.073	1.249	0.006	0.056	0.056	568.3	0.019
2030	Concrete/IndustrialSaws	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2030	Concrete/IndustrialSaws	26	50	0.409	4.199	3.222	0.007	0.041	0.041	568.299	0.036
2030	Concrete/IndustrialSaws	51	120	0.221	3.48	1.667	0.006	0.036	0.036	568.299	0.019
2030	Concrete/IndustrialSaws	121	175	0.163	3.074	0.59	0.006	0.025	0.025	568.299	0.014
2035	Concrete/IndustrialSaws	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2035	Concrete/IndustrialSaws	26	50	0.375	4.174	3.107	0.007	0.021	0.021	568.3	0.033
2035	Concrete/IndustrialSaws	51	120	0.2	3.476	1.491	0.006	0.018	0.018	568.299	0.018
2035	Concrete/IndustrialSaws	121	175	0.143	3.075	0.374	0.006	0.014	0.014	568.299	0.012
2040	Concrete/IndustrialSaws	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2040	Concrete/IndustrialSaws	26	50	0.373	4.175	3.058	0.007	0.014	0.014	568.299	0.033
2040	Concrete/IndustrialSaws	51	120	0.195	3.477	1.434	0.006	0.013	0.013	568.299	0.017
2040	Concrete/IndustrialSaws	121	175	0.136	3.076	0.297	0.006	0.011	0.011	568.3	0.012

CalEEMod Appendix D Default Data - Off-Road Equipment Emission Factors

Year	EquipmentType	Low Hp	High Hp	ROGg/bhp-hr	CO _g /bhp-hr	NOX _g /bhp-hr	SO ₂ g/bhp-hr	PM10 _g /bhp-hr	PM2.5 _g /bhp-hr	CO ₂ g/bhp-hr	CH ₄ g/bhp-hr
2017	Excavators	16	25	0.771	4.88904	4.67818	0.005	0.332	0.305	554.9101	0.17
2017	Excavators	26	50	0.771	4.88904	4.67818	0.005	0.332	0.305	554.9101	0.17
2017	Excavators	51	120	0.44	3.63939	4.37952	0.005	0.31	0.285	493.409	0.151
2017	Excavators	121	175	0.334	3.15091	3.69967	0.005	0.182	0.167	498.5222	0.153
2017	Excavators	176	250	0.247	1.24911	3.31872	0.005	0.105	0.097	498.4364	0.153
2017	Excavators	251	500	0.2	1.19852	2.50715	0.005	0.081	0.075	496.8098	0.152
2017	Excavators	501	750	0.21	1.22803	2.71934	0.005	0.09	0.083	494.5496	0.152
2018	Excavators	16	25	0.687	4.70022	4.39518	0.005	0.284	0.261	545.3468	0.17
2018	Excavators	26	50	0.687	4.70022	4.39518	0.005	0.284	0.261	545.3468	0.17
2018	Excavators	51	120	0.368	3.56214	3.76366	0.005	0.25	0.23	486.056	0.151
2018	Excavators	121	175	0.273	3.09338	2.92361	0.005	0.142	0.13	490.6725	0.153
2018	Excavators	176	250	0.202	1.15209	2.59377	0.005	0.079	0.073	490.2569	0.153
2018	Excavators	251	500	0.175	1.13951	2.05045	0.005	0.066	0.061	489.1025	0.152
2018	Excavators	501	750	0.189	1.22359	2.26567	0.005	0.076	0.07	487.6528	0.152
2019	Excavators	16	25	0.637	4.59698	4.19867	0.005	0.25	0.23	536.9132	0.17
2019	Excavators	26	50	0.637	4.59698	4.19867	0.005	0.25	0.23	536.9132	0.17
2019	Excavators	51	120	0.325	3.52421	3.36874	0.005	0.211	0.194	478.2452	0.151
2019	Excavators	121	175	0.246	3.08163	2.53264	0.005	0.122	0.112	482.6838	0.153
2019	Excavators	176	250	0.186	1.12671	2.24187	0.005	0.068	0.063	482.2503	0.153
2019	Excavators	251	500	0.162	1.1135	1.77986	0.005	0.058	0.053	481.2361	0.152
2019	Excavators	501	750	0.176	1.17289	1.98661	0.005	0.067	0.062	479.2876	0.152
2020	Excavators	16	25	0.593	4.50032	4.03131	0.005	0.222	0.204	525.3675	0.17
2020	Excavators	26	50	0.593	4.50032	4.03131	0.005	0.222	0.204	525.3675	0.17
2020	Excavators	51	120	0.299	3.50495	3.08964	0.005	0.185	0.17	468.0546	0.151
2020	Excavators	121	175	0.231	3.08597	2.27838	0.005	0.11	0.102	472.2891	0.153
2020	Excavators	176	250	0.177	1.11778	2.02738	0.005	0.061	0.056	471.8828	0.153
2020	Excavators	251	500	0.153	1.1016	1.57199	0.005	0.052	0.048	470.2956	0.152
2020	Excavators	501	750	0.17	1.14543	1.79718	0.005	0.061	0.056	468.8706	0.152
2021	Excavators	16	25	0.562	4.46094	3.91866	0.005	0.202	0.186	525.3774	0.17
2021	Excavators	26	50	0.562	4.46094	3.91866	0.005	0.202	0.186	525.3774	0.17
2021	Excavators	51	120	0.275	3.49196	2.84891	0.005	0.161	0.148	467.7906	0.151
2021	Excavators	121	175	0.216	3.08975	2.03357	0.005	0.099	0.091	472.3586	0.153
2021	Excavators	176	250	0.163	1.10324	1.70572	0.005	0.052	0.048	471.7931	0.153
2021	Excavators	251	500	0.143	1.08777	1.33174	0.005	0.045	0.041	469.6156	0.152
2021	Excavators	501	750	0.165	1.14978	1.61856	0.005	0.056	0.052	469.547	0.152
2022	Excavators	16	25	0.478	4.27341	3.70039	0.005	0.16	0.147	525.4468	0.17
2022	Excavators	26	50	0.478	4.27341	3.70039	0.005	0.16	0.147	525.4468	0.17
2022	Excavators	51	120	0.252	3.47329	2.60649	0.005	0.138	0.127	467.6256	0.151
2022	Excavators	121	175	0.191	3.074	1.6781	0.005	0.081	0.075	472.1917	0.153
2022	Excavators	176	250	0.148	1.09157	1.38616	0.005	0.044	0.04	472.0412	0.153
2022	Excavators	251	500	0.128	1.06126	1.03988	0.005	0.035	0.032	469.7105	0.152
2022	Excavators	501	750	0.15	1.144	1.2865	0.005	0.047	0.043	469.2892	0.152
2023	Excavators	16	25	0.45	4.23393	3.59356	0.005	0.139	0.128	525.4286	0.17
2023	Excavators	26	50	0.45	4.23393	3.59356	0.005	0.139	0.128	525.4286	0.17
2023	Excavators	51	120	0.23	3.45367	2.38066	0.005	0.116	0.107	467.1573	0.151
2023	Excavators	121	175	0.178	3.07648	1.46245	0.005	0.072	0.066	472.277	0.153
2023	Excavators	176	250	0.142	1.08965	1.20943	0.005	0.039	0.036	472.2131	0.153
2023	Excavators	251	500	0.122	1.05093	0.89311	0.005	0.03	0.028	469.8892	0.152
2023	Excavators	501	750	0.144	1.13199	1.15865	0.005	0.043	0.04	468.6826	0.152
2024	Excavators	16	25	0.416	4.20529	3.50816	0.005	0.12	0.11	525.979	0.17

CalEEMod Appendix D Default Data - Off-Road Equipment Emission Factors

Year	EquipmentType	Low Hp	High Hp	ROGg/bhp-hr	CO,g/bhp-hr	NOX,g/bhp-hr	SO2,g/bhp-hr	PM10,g/bhp-hr	PM2_5,g/bhp-hr	CO2,g/bhp-hr	CH4,g/bhp-hr
2024	Excavators	26	50	0.416	4.20529	3.50816	0.005	0.12	0.11	525.979	0.17
2024	Excavators	51	120	0.217	3.45322	2.24781	0.005	0.102	0.094	467.3843	0.151
2024	Excavators	121	175	0.17	3.08336	1.32479	0.005	0.065	0.06	472.4279	0.153
2024	Excavators	176	250	0.139	1.0899	1.10808	0.005	0.036	0.033	472.4415	0.153
2024	Excavators	251	500	0.121	1.05369	0.83129	0.005	0.029	0.026	469.7108	0.152
2024	Excavators	501	750	0.142	1.13421	1.10467	0.005	0.041	0.037	468.652	0.152
2025	Excavators	16	25	0.403	4.21941	3.45298	0.005	0.107	0.099	525.7772	0.17
2025	Excavators	26	50	0.403	4.21941	3.45298	0.005	0.107	0.099	525.7772	0.17
2025	Excavators	51	120	0.201	3.43876	2.08246	0.005	0.085	0.078	466.7376	0.151
2025	Excavators	121	175	0.158	3.078	1.15367	0.005	0.057	0.052	472.4964	0.153
2025	Excavators	176	250	0.131	1.08136	0.96211	0.005	0.032	0.029	472.5599	0.153
2025	Excavators	251	500	0.115	1.05072	0.72641	0.005	0.026	0.024	470.2915	0.152
2025	Excavators	501	750	0.139	1.13484	1.02571	0.005	0.038	0.035	468.5582	0.152
2030	Excavators	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2030	Excavators	26	50	0.602	5.309	3.393	0.007	0.038	0.038	568.299	0.054
2030	Excavators	51	120	0.301	3.806	1.676	0.006	0.034	0.034	568.299	0.027
2030	Excavators	121	175	0.213	3.362	0.525	0.006	0.023	0.023	568.299	0.019
2030	Excavators	176	250	0.203	1.145	0.452	0.006	0.016	0.016	568.299	0.018
2030	Excavators	251	500	0.202	1.088	0.433	0.005	0.016	0.016	568.299	0.018
2030	Excavators	501	750	0.202	1.088	0.437	0.005	0.016	0.016	568.299	0.018
2035	Excavators	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2035	Excavators	26	50	0.572	5.287	3.323	0.007	0.024	0.024	568.299	0.051
2035	Excavators	51	120	0.284	3.802	1.551	0.006	0.021	0.021	568.299	0.025
2035	Excavators	121	175	0.197	3.363	0.365	0.006	0.015	0.015	568.299	0.017
2035	Excavators	176	250	0.195	1.145	0.342	0.006	0.013	0.013	568.3	0.017
2035	Excavators	251	500	0.195	1.089	0.337	0.005	0.013	0.013	568.299	0.017
2035	Excavators	501	750	0.195	1.088	0.338	0.005	0.013	0.013	568.299	0.017
2040	Excavators	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.3	0.061
2040	Excavators	26	50	0.567	5.283	3.29	0.007	0.019	0.019	568.299	0.051
2040	Excavators	51	120	0.279	3.802	1.507	0.006	0.017	0.017	568.299	0.025
2040	Excavators	121	175	0.193	3.363	0.311	0.006	0.013	0.013	568.299	0.017
2040	Excavators	176	250	0.192	1.145	0.3	0.006	0.011	0.011	568.299	0.017
2040	Excavators	251	500	0.192	1.089	0.3	0.005	0.011	0.011	568.299	0.017
2040	Excavators	501	750	0.192	1.089	0.3	0.005	0.011	0.011	568.299	0.017
2017	GeneratorSets	6	15	0.699	3.599	4.847	0.008	0.25	0.25	568.299	0.063
2017	GeneratorSets	16	25	0.757	2.564	4.729	0.007	0.233	0.233	568.299	0.068
2017	GeneratorSets	26	50	1.017	4.292	4.522	0.007	0.285	0.285	568.299	0.091
2017	GeneratorSets	51	120	0.52	3.442	4.072	0.006	0.274	0.274	568.299	0.046
2017	GeneratorSets	121	175	0.356	2.931	3.347	0.006	0.151	0.151	568.299	0.032
2017	GeneratorSets	176	250	0.245	1.063	2.91	0.006	0.081	0.081	568.299	0.022
2017	GeneratorSets	251	500	0.224	1.048	2.579	0.005	0.076	0.076	568.299	0.02
2017	GeneratorSets	501	750	0.23	1.048	2.66	0.005	0.077	0.077	568.299	0.02
2017	GeneratorSets	1001	9999	0.301	1.161	4.293	0.005	0.104	0.104	568.299	0.027
2018	GeneratorSets	6	15	0.679	3.58	4.728	0.008	0.237	0.237	568.299	0.061
2018	GeneratorSets	16	25	0.744	2.531	4.661	0.007	0.224	0.224	568.299	0.067
2018	GeneratorSets	26	50	0.895	4.182	4.366	0.007	0.253	0.253	568.299	0.08
2018	GeneratorSets	51	120	0.461	3.418	3.752	0.006	0.239	0.239	568.299	0.041
2018	GeneratorSets	121	175	0.319	2.93	2.989	0.006	0.133	0.133	568.299	0.028
2018	GeneratorSets	176	250	0.226	1.048	2.582	0.006	0.072	0.072	568.299	0.02
2018	GeneratorSets	251	500	0.211	1.028	2.31	0.005	0.069	0.069	568.299	0.019

CalEEMod Appendix D Default Data - Off-Road Equipment Emission Factors

Year	EquipmentType	Low Hp	High Hp	ROGg/bhp-hr	CO ₂ g/bhp-hr	NOX ₂ g/bhp-hr	SO ₂ g/bhp-hr	PM10 ₂ g/bhp-hr	PM2.5 ₂ g/bhp-hr	CO ₂ g/bhp-hr	CH ₄ g/bhp-hr
2018	GeneratorSets	501	750	0.215	1.028	2.37	0.005	0.07	0.07	568.299	0.019
2018	GeneratorSets	1001	9999	0.28	1.128	4.058	0.005	0.095	0.095	568.299	0.025
2019	GeneratorSets	6	15	0.662	3.562	4.617	0.008	0.224	0.224	568.299	0.059
2019	GeneratorSets	16	25	0.731	2.501	4.596	0.007	0.214	0.214	568.299	0.066
2019	GeneratorSets	26	50	0.779	4.076	4.215	0.007	0.222	0.222	568.299	0.07
2019	GeneratorSets	51	120	0.405	3.396	3.446	0.006	0.206	0.206	568.299	0.036
2019	GeneratorSets	121	175	0.29	2.929	2.669	0.006	0.118	0.118	568.299	0.026
2019	GeneratorSets	176	250	0.211	1.036	2.285	0.006	0.064	0.064	568.299	0.019
2019	GeneratorSets	251	500	0.199	1.015	2.056	0.005	0.062	0.062	568.299	0.018
2019	GeneratorSets	501	750	0.202	1.015	2.104	0.005	0.062	0.062	568.299	0.018
2019	GeneratorSets	1001	9999	0.261	1.103	3.829	0.005	0.087	0.087	568.299	0.023
2020	GeneratorSets	6	15	0.646	3.546	4.516	0.008	0.212	0.212	568.299	0.058
2020	GeneratorSets	16	25	0.721	2.473	4.538	0.007	0.205	0.205	568.299	0.065
2020	GeneratorSets	26	50	0.691	3.995	4.075	0.007	0.194	0.194	568.299	0.062
2020	GeneratorSets	51	120	0.364	3.38	3.173	0.006	0.179	0.179	568.299	0.032
2020	GeneratorSets	121	175	0.267	2.93	2.38	0.006	0.105	0.105	568.299	0.024
2020	GeneratorSets	176	250	0.198	1.026	2.016	0.006	0.057	0.057	568.299	0.017
2020	GeneratorSets	251	500	0.188	1.005	1.816	0.005	0.055	0.055	568.299	0.017
2020	GeneratorSets	501	750	0.191	1.005	1.858	0.005	0.056	0.056	568.299	0.017
2020	GeneratorSets	1001	9999	0.242	1.082	3.608	0.005	0.079	0.079	568.3	0.021
2021	GeneratorSets	6	15	0.634	3.531	4.441	0.008	0.201	0.201	568.299	0.057
2021	GeneratorSets	16	25	0.712	2.446	4.497	0.007	0.196	0.196	568.299	0.064
2021	GeneratorSets	26	50	0.613	3.905	3.916	0.007	0.165	0.165	568.299	0.055
2021	GeneratorSets	51	120	0.326	3.361	2.888	0.006	0.153	0.153	568.299	0.029
2021	GeneratorSets	121	175	0.243	2.925	2.068	0.006	0.091	0.091	568.299	0.021
2021	GeneratorSets	176	250	0.183	1.016	1.73	0.006	0.049	0.049	568.299	0.016
2021	GeneratorSets	251	500	0.175	0.996	1.562	0.005	0.048	0.048	568.299	0.015
2021	GeneratorSets	501	750	0.177	0.996	1.596	0.005	0.048	0.048	568.299	0.016
2021	GeneratorSets	1001	9999	0.22	1.06	3.372	0.005	0.07	0.07	568.3	0.019
2022	GeneratorSets	6	15	0.626	3.519	4.39	0.008	0.193	0.193	568.299	0.056
2022	GeneratorSets	16	25	0.706	2.426	4.47	0.007	0.188	0.188	568.299	0.063
2022	GeneratorSets	26	50	0.56	3.858	3.796	0.007	0.143	0.143	568.299	0.05
2022	GeneratorSets	51	120	0.301	3.353	2.671	0.006	0.134	0.134	568.299	0.027
2022	GeneratorSets	121	175	0.226	2.926	1.83	0.006	0.081	0.081	568.299	0.02
2022	GeneratorSets	176	250	0.173	1.01	1.508	0.006	0.043	0.043	568.299	0.015
2022	GeneratorSets	251	500	0.166	0.99	1.384	0.005	0.042	0.042	568.299	0.015
2022	GeneratorSets	501	750	0.168	0.99	1.412	0.005	0.043	0.043	568.299	0.015
2022	GeneratorSets	1001	9999	0.206	1.045	3.202	0.005	0.063	0.063	568.299	0.018
2023	GeneratorSets	6	15	0.618	3.508	4.345	0.008	0.186	0.186	568.299	0.055
2023	GeneratorSets	16	25	0.701	2.407	4.447	0.007	0.182	0.182	568.299	0.063
2023	GeneratorSets	26	50	0.514	3.819	3.685	0.007	0.124	0.124	568.299	0.046
2023	GeneratorSets	51	120	0.279	3.347	2.477	0.006	0.117	0.117	568.299	0.025
2023	GeneratorSets	121	175	0.211	2.927	1.635	0.006	0.071	0.071	568.299	0.019
2023	GeneratorSets	176	250	0.164	1.006	1.328	0.006	0.038	0.038	568.299	0.014
2023	GeneratorSets	251	500	0.158	0.986	1.228	0.005	0.037	0.037	568.299	0.014
2023	GeneratorSets	501	750	0.16	0.986	1.253	0.005	0.037	0.037	568.299	0.014
2023	GeneratorSets	1001	9999	0.194	1.031	3.058	0.005	0.058	0.058	568.299	0.017
2024	GeneratorSets	6	15	0.612	3.499	4.305	0.008	0.181	0.181	568.299	0.055
2024	GeneratorSets	16	25	0.697	2.39	4.426	0.007	0.178	0.178	568.299	0.062
2024	GeneratorSets	26	50	0.475	3.787	3.582	0.007	0.107	0.107	568.299	0.042

CalEEMod Appendix D Default Data - Off-Road Equipment Emission Factors

Year	EquipmentType	Low Hp	High Hp	ROGg/bhp-hr	CO,g/bhp-hr	NOX,g/bhp-hr	SO2,g/bhp-hr	PM10,g/bhp-hr	PM2_5,g/bhp-hr	CO2,g/bhp-hr	CH4,g/bhp-hr
2024	GeneratorSets	51	120	0.26	3.342	2.321	0.006	0.101	0.101	568.299	0.023
2024	GeneratorSets	121	175	0.197	2.929	1.462	0.006	0.062	0.062	568.299	0.017
2024	GeneratorSets	176	250	0.155	1.003	1.169	0.006	0.033	0.033	568.299	0.014
2024	GeneratorSets	251	500	0.151	0.983	1.082	0.005	0.032	0.032	568.3	0.013
2024	GeneratorSets	501	750	0.152	0.983	1.104	0.005	0.032	0.032	568.299	0.013
2024	GeneratorSets	1001	9999	0.183	1.018	2.929	0.005	0.052	0.052	568.3	0.016
2025	GeneratorSets	6	15	0.607	3.491	4.269	0.008	0.178	0.178	568.299	0.054
2025	GeneratorSets	16	25	0.694	2.376	4.407	0.007	0.175	0.175	568.299	0.062
2025	GeneratorSets	26	50	0.44	3.758	3.481	0.007	0.093	0.093	568.3	0.039
2025	GeneratorSets	51	120	0.243	3.338	2.185	0.006	0.087	0.087	568.299	0.021
2025	GeneratorSets	121	175	0.184	2.93	1.297	0.006	0.053	0.053	568.299	0.016
2025	GeneratorSets	176	250	0.147	1	1.02	0.006	0.028	0.028	568.299	0.013
2025	GeneratorSets	251	500	0.144	0.981	0.945	0.005	0.027	0.027	568.3	0.013
2025	GeneratorSets	501	750	0.145	0.981	0.964	0.005	0.027	0.027	568.299	0.013
2025	GeneratorSets	1001	9999	0.173	1.008	2.812	0.005	0.047	0.047	568.299	0.015
2030	GeneratorSets	6	15	0.592	3.47	4.164	0.008	0.166	0.166	568.299	0.053
2030	GeneratorSets	16	25	0.686	2.34	4.347	0.007	0.165	0.165	568.299	0.061
2030	GeneratorSets	26	50	0.315	3.64	3.107	0.007	0.038	0.038	568.299	0.028
2030	GeneratorSets	51	120	0.178	3.316	1.645	0.006	0.034	0.034	568.299	0.016
2030	GeneratorSets	121	175	0.13	2.929	0.601	0.006	0.023	0.023	568.299	0.011
2030	GeneratorSets	176	250	0.12	0.998	0.504	0.006	0.016	0.016	568.299	0.01
2030	GeneratorSets	251	500	0.119	0.978	0.476	0.005	0.015	0.015	568.299	0.01
2030	GeneratorSets	501	750	0.119	0.978	0.482	0.005	0.015	0.015	568.299	0.01
2030	GeneratorSets	1001	9999	0.128	0.979	2.483	0.005	0.029	0.029	568.299	0.011
2035	GeneratorSets	6	15	0.589	3.47	4.143	0.008	0.162	0.162	568.299	0.053
2035	GeneratorSets	16	25	0.685	2.34	4.332	0.007	0.162	0.162	568.299	0.061
2035	GeneratorSets	26	50	0.276	3.607	2.991	0.007	0.018	0.018	568.299	0.024
2035	GeneratorSets	51	120	0.156	3.31	1.458	0.006	0.016	0.016	568.299	0.014
2035	GeneratorSets	121	175	0.113	2.929	0.373	0.006	0.013	0.013	568.299	0.01
2035	GeneratorSets	176	250	0.11	0.998	0.331	0.006	0.011	0.011	568.299	0.009
2035	GeneratorSets	251	500	0.11	0.978	0.328	0.005	0.011	0.011	568.299	0.009
2035	GeneratorSets	501	750	0.11	0.978	0.328	0.005	0.011	0.011	568.299	0.009
2035	GeneratorSets	1001	9999	0.114	0.978	2.362	0.005	0.022	0.022	568.299	0.01
2040	GeneratorSets	6	15	0.589	3.469	4.142	0.008	0.161	0.161	568.299	0.053
2040	GeneratorSets	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2040	GeneratorSets	26	50	0.273	3.601	2.941	0.007	0.012	0.012	568.3	0.024
2040	GeneratorSets	51	120	0.152	3.308	1.399	0.006	0.012	0.012	568.299	0.013
2040	GeneratorSets	121	175	0.107	2.928	0.293	0.006	0.01	0.01	568.299	0.009
2040	GeneratorSets	176	250	0.106	0.997	0.277	0.006	0.009	0.009	568.299	0.009
2040	GeneratorSets	251	500	0.106	0.978	0.277	0.005	0.009	0.009	568.299	0.009
2040	GeneratorSets	501	750	0.106	0.978	0.277	0.005	0.009	0.009	568.3	0.009
2040	GeneratorSets	1001	9999	0.107	0.978	2.33	0.005	0.02	0.02	568.299	0.009
2017	Pavers	16	25	1.731	6.19932	5.43675	0.005	0.54	0.496	556.4528	0.17
2017	Pavers	26	50	1.731	6.19932	5.43675	0.005	0.54	0.496	556.4528	0.17
2017	Pavers	51	120	0.625	3.75882	5.69243	0.005	0.437	0.402	495.9253	0.152
2017	Pavers	121	175	0.389	3.06282	4.35312	0.005	0.214	0.197	498.967	0.153
2017	Pavers	176	250	0.208	1.03652	3.80866	0.005	0.1	0.092	499.5617	0.153
2017	Pavers	251	500	0.168	0.97942	2.48674	0.005	0.087	0.08	491.7843	0.151
2018	Pavers	16	25	1.539	5.8493	5.12103	0.005	0.478	0.44	547.0785	0.17
2018	Pavers	26	50	1.539	5.8493	5.12103	0.005	0.478	0.44	547.0785	0.17

CalEEMod Appendix D Default Data - Off-Road Equipment Emission Factors

Year	EquipmentType	Low Hp	High Hp	ROGg/bhp-hr	CO,g/bhp-hr	NOX,g/bhp-hr	SO2,g/bhp-hr	PM10,g/bhp-hr	PM2_5,g/bhp-hr	CO2,g/bhp-hr	CH4,g/bhp-hr
2018	Pavers	51	120	0.536	3.66032	5.01936	0.005	0.375	0.345	488.1812	0.152
2018	Pavers	121	175	0.339	3.03913	3.7472	0.005	0.183	0.168	491.322	0.153
2018	Pavers	176	250	0.198	1.03446	3.47438	0.005	0.092	0.085	491.543	0.153
2018	Pavers	251	500	0.164	0.98125	2.32002	0.005	0.083	0.076	484.2774	0.151
2019	Pavers	16	25	1.418	5.65687	4.91634	0.005	0.436	0.401	538.3246	0.17
2019	Pavers	26	50	1.418	5.65687	4.91634	0.005	0.436	0.401	538.3246	0.17
2019	Pavers	51	120	0.496	3.62215	4.67048	0.005	0.345	0.318	480.2509	0.152
2019	Pavers	121	175	0.299	3.01323	3.24473	0.005	0.159	0.146	483.3938	0.153
2019	Pavers	176	250	0.187	1.03181	3.11084	0.005	0.084	0.077	483.5743	0.153
2019	Pavers	251	500	0.166	0.98586	2.26992	0.005	0.081	0.075	476.9707	0.151
2020	Pavers	16	25	1.318	5.52345	4.76401	0.005	0.402	0.37	526.2098	0.17
2020	Pavers	26	50	1.318	5.52345	4.76401	0.005	0.402	0.37	526.2098	0.17
2020	Pavers	51	120	0.47	3.60405	4.42718	0.005	0.325	0.299	469.8815	0.152
2020	Pavers	121	175	0.273	3.0097	2.91833	0.005	0.142	0.131	472.7746	0.153
2020	Pavers	176	250	0.176	1.02834	2.77699	0.005	0.076	0.07	472.8337	0.153
2020	Pavers	251	500	0.165	0.98677	2.13394	0.005	0.077	0.071	466.2059	0.151
2021	Pavers	16	25	1.208	5.30162	4.60183	0.005	0.37	0.34	526.5153	0.17
2021	Pavers	26	50	1.208	5.30162	4.60183	0.005	0.37	0.34	526.5153	0.17
2021	Pavers	51	120	0.42	3.56251	4.02622	0.005	0.285	0.262	469.7736	0.152
2021	Pavers	121	175	0.256	3.01647	2.6948	0.005	0.13	0.12	472.5552	0.153
2021	Pavers	176	250	0.165	1.02422	2.4844	0.005	0.07	0.064	472.4765	0.153
2021	Pavers	251	500	0.164	0.9877	2.05298	0.005	0.074	0.068	465.5908	0.151
2022	Pavers	16	25	1.092	5.11433	4.42092	0.005	0.33	0.303	526.8963	0.17
2022	Pavers	26	50	1.092	5.11433	4.42092	0.005	0.33	0.303	526.8963	0.17
2022	Pavers	51	120	0.373	3.52511	3.65932	0.005	0.248	0.228	470.1854	0.152
2022	Pavers	121	175	0.215	2.99478	2.17958	0.005	0.104	0.095	472.7599	0.153
2022	Pavers	176	250	0.14	1.01231	1.89985	0.005	0.055	0.05	472.3718	0.153
2022	Pavers	251	500	0.15	0.98238	1.81028	0.005	0.063	0.058	466.0042	0.151
2023	Pavers	16	25	1.007	5.00667	4.28484	0.005	0.299	0.275	526.8595	0.17
2023	Pavers	26	50	1.007	5.00667	4.28484	0.005	0.299	0.275	526.8595	0.17
2023	Pavers	51	120	0.349	3.50733	3.42661	0.005	0.226	0.208	470.0839	0.152
2023	Pavers	121	175	0.199	2.99398	1.95517	0.005	0.092	0.085	472.7178	0.153
2023	Pavers	176	250	0.13	1.01018	1.6106	0.005	0.047	0.043	472.6051	0.153
2023	Pavers	251	500	0.152	0.98653	1.77101	0.005	0.062	0.057	466.0038	0.151
2024	Pavers	16	25	0.95	4.95625	4.20308	0.005	0.279	0.257	526.8565	0.17
2024	Pavers	26	50	0.95	4.95625	4.20308	0.005	0.279	0.257	526.8565	0.17
2024	Pavers	51	120	0.337	3.50784	3.2771	0.005	0.213	0.196	470.2262	0.152
2024	Pavers	121	175	0.191	3.0042	1.80882	0.005	0.084	0.078	472.6605	0.153
2024	Pavers	176	250	0.119	1.00872	1.34323	0.005	0.041	0.038	473.2362	0.153
2024	Pavers	251	500	0.143	0.98624	1.54798	0.005	0.054	0.049	467.1711	0.151
2025	Pavers	16	25	0.918	4.94451	4.13112	0.005	0.265	0.243	526.8533	0.17
2025	Pavers	26	50	0.918	4.94451	4.13112	0.005	0.265	0.243	526.8533	0.17
2025	Pavers	51	120	0.314	3.49286	3.06788	0.005	0.19	0.175	469.8988	0.152
2025	Pavers	121	175	0.18	3.0071	1.64396	0.005	0.077	0.071	472.485	0.153
2025	Pavers	176	250	0.107	1.00414	1.03493	0.005	0.034	0.031	473.4832	0.153
2025	Pavers	251	500	0.115	0.96892	1.13351	0.005	0.039	0.036	465.8824	0.151
2030	Pavers	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2030	Pavers	26	50	0.845	5.396	3.841	0.007	0.134	0.134	568.299	0.076
2030	Pavers	51	120	0.408	3.8	2.468	0.006	0.121	0.121	568.3	0.036
2030	Pavers	121	175	0.3	3.326	1.425	0.006	0.074	0.074	568.299	0.027

CalEEMod Appendix D Default Data - Off-Road Equipment Emission Factors

Year	EquipmentType	Low Hp	High Hp	ROGg/bhp-hr	CO,g/bhp-hr	NOX,g/bhp-hr	SO2,g/bhp-hr	PM10,g/bhp-hr	PM2_5,g/bhp-hr	CO2,g/bhp-hr	CH4,g/bhp-hr
2030	Pavers	176	250	0.259	1.192	1.246	0.006	0.045	0.045	568.299	0.023
2030	Pavers	251	500	0.253	1.181	1.141	0.005	0.043	0.043	568.299	0.022
2035	Pavers	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2035	Pavers	26	50	0.694	5.26	3.555	0.007	0.076	0.076	568.299	0.062
2035	Pavers	51	120	0.338	3.774	1.986	0.006	0.069	0.069	568.299	0.03
2035	Pavers	121	175	0.244	3.319	0.889	0.006	0.043	0.043	568.299	0.022
2035	Pavers	176	250	0.221	1.157	0.772	0.006	0.027	0.027	568.3	0.019
2035	Pavers	251	500	0.218	1.111	0.722	0.005	0.026	0.026	568.299	0.019
2040	Pavers	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2040	Pavers	26	50	0.618	5.189	3.393	0.007	0.047	0.047	568.299	0.055
2040	Pavers	51	120	0.302	3.763	1.731	0.006	0.043	0.043	568.299	0.027
2040	Pavers	121	175	0.213	3.319	0.583	0.006	0.027	0.027	568.299	0.019
2040	Pavers	176	250	0.2	1.138	0.525	0.006	0.018	0.018	568.299	0.018
2040	Pavers	251	500	0.198	1.085	0.498	0.005	0.018	0.018	568.299	0.017
2018	PavingEquipment	16	25	0.926	4.80403	4.72756	0.005	0.359	0.33	548.6481	0.168
2018	PavingEquipment	26	50	0.926	4.80403	4.72756	0.005	0.359	0.33	548.6481	0.168
2018	PavingEquipment	51	120	0.563	3.74146	5.20745	0.005	0.391	0.359	500.1649	0.153
2018	PavingEquipment	121	175	0.342	3.07321	3.89633	0.005	0.195	0.179	497.148	0.152
2018	PavingEquipment	176	250	0.288	1.333	4.12109	0.005	0.141	0.13	498.7323	0.153
2018	PavingEquipment	16	25	0.737	4.41578	4.31244	0.005	0.286	0.263	540.6115	0.168
2018	PavingEquipment	26	50	0.737	4.41578	4.31244	0.005	0.286	0.263	540.6115	0.168
2018	PavingEquipment	51	120	0.449	3.60743	4.27034	0.005	0.302	0.278	492.1184	0.153
2018	PavingEquipment	121	175	0.284	3.02602	3.17208	0.005	0.155	0.143	489.2024	0.152
2018	PavingEquipment	176	250	0.258	1.28117	3.58656	0.005	0.123	0.113	490.6833	0.153
2019	PavingEquipment	16	25	0.705	4.40798	4.23779	0.005	0.27	0.248	531.8612	0.168
2019	PavingEquipment	26	50	0.705	4.40798	4.23779	0.005	0.27	0.248	531.8612	0.168
2019	PavingEquipment	51	120	0.425	3.59849	4.04152	0.005	0.281	0.258	484.387	0.153
2019	PavingEquipment	121	175	0.254	3.0109	2.6924	0.005	0.134	0.123	481.2251	0.152
2019	PavingEquipment	176	250	0.241	1.24449	3.25106	0.005	0.112	0.103	482.6441	0.153
2020	PavingEquipment	16	25	0.621	4.22322	3.9519	0.005	0.217	0.2	520.1235	0.168
2020	PavingEquipment	26	50	0.621	4.22322	3.9519	0.005	0.217	0.2	520.1235	0.168
2020	PavingEquipment	51	120	0.397	3.58172	3.78064	0.005	0.256	0.235	473.3249	0.153
2020	PavingEquipment	121	175	0.248	3.02393	2.55498	0.005	0.128	0.118	470.7359	0.152
2020	PavingEquipment	176	250	0.243	1.25215	3.2202	0.005	0.111	0.102	472.1514	0.153
2021	PavingEquipment	16	25	0.587	4.21072	3.88226	0.005	0.2	0.184	520.3965	0.168
2021	PavingEquipment	26	50	0.587	4.21072	3.88226	0.005	0.2	0.184	520.3965	0.168
2021	PavingEquipment	51	120	0.355	3.5537	3.45065	0.005	0.219	0.201	473.2205	0.153
2021	PavingEquipment	121	175	0.229	3.03229	2.31505	0.005	0.114	0.105	470.6495	0.152
2021	PavingEquipment	176	250	0.211	1.20904	2.58202	0.005	0.092	0.085	472.151	0.153
2022	PavingEquipment	16	25	0.571	4.24448	3.83611	0.005	0.188	0.173	520.6594	0.168
2022	PavingEquipment	26	50	0.571	4.24448	3.83611	0.005	0.188	0.173	520.6594	0.168
2022	PavingEquipment	51	120	0.296	3.50075	2.99968	0.005	0.171	0.157	473.4475	0.153
2022	PavingEquipment	121	175	0.213	3.03777	2.07331	0.005	0.101	0.093	470.6646	0.152
2022	PavingEquipment	176	250	0.195	1.20363	2.22813	0.005	0.083	0.076	472.169	0.153
2023	PavingEquipment	16	25	0.541	4.24108	3.77446	0.005	0.173	0.159	521.1138	0.169
2023	PavingEquipment	26	50	0.541	4.24108	3.77446	0.005	0.173	0.159	521.1138	0.169
2023	PavingEquipment	51	120	0.278	3.50331	2.83717	0.005	0.152	0.14	473.427	0.153
2023	PavingEquipment	121	175	0.204	3.05059	1.91255	0.005	0.093	0.086	470.663	0.152
2023	PavingEquipment	176	250	0.175	1.16523	1.88495	0.005	0.07	0.065	472.169	0.153
2024	PavingEquipment	16	25	0.523	4.27468	3.74329	0.005	0.164	0.151	521.0575	0.169

CalEEMod Appendix D Default Data - Off-Road Equipment Emission Factors

Year	EquipmentType	Low Hp	High Hp	ROGg/bhp-hr	CO,g/bhp-hr	NOX,g/bhp-hr	SO2,g/bhp-hr	PM10,g/bhp-hr	PM2_5,g/bhp-hr	CO2,g/bhp-hr	CH4,g/bhp-hr
2024	PavingEquipment	26	50	0.523	4.27468	3.74329	0.005	0.164	0.151	521.0575	0.169
2024	PavingEquipment	51	120	0.262	3.50288	2.67309	0.005	0.135	0.125	473.1748	0.153
2024	PavingEquipment	121	175	0.197	3.06623	1.78512	0.005	0.086	0.079	470.6614	0.152
2024	PavingEquipment	176	250	0.138	1.11417	1.29567	0.005	0.048	0.044	472.2124	0.153
2025	PavingEquipment	16	25	0.476	4.20347	3.62672	0.005	0.141	0.13	520.9975	0.169
2025	PavingEquipment	26	50	0.476	4.20347	3.62672	0.005	0.141	0.13	520.9975	0.169
2025	PavingEquipment	51	120	0.241	3.48256	2.49628	0.005	0.118	0.108	473.4239	0.153
2025	PavingEquipment	121	175	0.175	3.03837	1.509	0.005	0.075	0.069	470.4844	0.152
2025	PavingEquipment	176	250	0.133	1.11653	1.10952	0.005	0.043	0.04	472.2341	0.153
2030	PavingEquipment	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2030	PavingEquipment	26	50	0.802	5.309	3.809	0.007	0.126	0.126	568.299	0.072
2030	PavingEquipment	51	120	0.39	3.774	2.393	0.006	0.114	0.114	568.3	0.035
2030	PavingEquipment	121	175	0.29	3.306	1.363	0.006	0.07	0.07	568.299	0.026
2030	PavingEquipment	176	250	0.25	1.171	1.176	0.006	0.042	0.042	568.299	0.022
2035	PavingEquipment	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2035	PavingEquipment	26	50	0.664	5.181	3.511	0.007	0.07	0.07	568.3	0.059
2035	PavingEquipment	51	120	0.326	3.753	1.928	0.006	0.064	0.064	568.299	0.029
2035	PavingEquipment	121	175	0.235	3.303	0.832	0.006	0.04	0.04	568.299	0.021
2035	PavingEquipment	176	250	0.212	1.14	0.714	0.006	0.024	0.024	568.299	0.019
2040	PavingEquipment	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2040	PavingEquipment	26	50	0.589	5.111	3.361	0.007	0.042	0.042	568.3	0.053
2040	PavingEquipment	51	120	0.291	3.744	1.687	0.006	0.039	0.039	568.299	0.026
2040	PavingEquipment	121	175	0.205	3.304	0.536	0.006	0.025	0.025	568.299	0.018
2040	PavingEquipment	176	250	0.193	1.127	0.485	0.006	0.017	0.017	568.299	0.017
2017	PlateCompactors	6	15	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059
2018	PlateCompactors	6	15	0.661	3.47	4.142	0.008	0.161	0.161	568.3	0.059
2019	PlateCompactors	6	15	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059
2020	PlateCompactors	6	15	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059
2021	PlateCompactors	6	15	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059
2022	PlateCompactors	6	15	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059
2023	PlateCompactors	6	15	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059
2024	PlateCompactors	6	15	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059
2025	PlateCompactors	6	15	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059
2030	PlateCompactors	6	15	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059
2035	PlateCompactors	6	15	0.661	3.47	4.142	0.008	0.161	0.161	568.299	0.059
2040	PlateCompactors	6	15	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059
2017	Rollers	6	15	1.198	5.14727	5.09771	0.005	0.436	0.401	555.0199	0.17
2017	Rollers	16	25	1.198	5.14727	5.09771	0.005	0.436	0.401	555.0199	0.17
2017	Rollers	26	50	1.198	5.14727	5.09771	0.005	0.436	0.401	555.0199	0.17
2017	Rollers	51	120	0.58	3.71315	5.4114	0.005	0.392	0.361	500.1525	0.153
2017	Rollers	121	175	0.314	2.98069	3.87384	0.005	0.18	0.166	497.9088	0.153
2017	Rollers	176	250	0.274	1.40849	3.92097	0.005	0.129	0.119	499.7021	0.153
2017	Rollers	251	500	0.297	2.68487	3.84047	0.005	0.15	0.138	505.8318	0.155
2018	Rollers	6	15	1.064	4.92335	4.8416	0.005	0.387	0.356	546.2905	0.17
2018	Rollers	16	25	1.064	4.92335	4.8416	0.005	0.387	0.356	546.2905	0.17
2018	Rollers	26	50	1.064	4.92335	4.8416	0.005	0.387	0.356	546.2905	0.17
2018	Rollers	51	120	0.481	3.60981	4.65049	0.005	0.32	0.294	492.2118	0.153
2018	Rollers	121	175	0.265	2.94895	3.18126	0.005	0.147	0.135	490.1805	0.153
2018	Rollers	176	250	0.211	1.24341	2.99492	0.005	0.094	0.086	491.6643	0.153
2018	Rollers	251	500	0.245	2.23145	3.09814	0.005	0.119	0.11	497.9962	0.155

CalEEMod Appendix D Default Data - Off-Road Equipment Emission Factors

Year	EquipmentType	Low Hp	High Hp	ROGg/bhp-hr	CO,g/bhp-hr	NOX,g/bhp-hr	SO2,g/bhp-hr	PM10,g/bhp-hr	PM2_5,g/bhp-hr	CO2,g/bhp-hr	CH4,g/bhp-hr
2019	Rollers	6	15	0.972	4.77841	4.64491	0.005	0.349	0.321	537.546	0.17
2019	Rollers	16	25	0.972	4.77841	4.64491	0.005	0.349	0.321	537.546	0.17
2019	Rollers	26	50	0.972	4.77841	4.64491	0.005	0.349	0.321	537.546	0.17
2019	Rollers	51	120	0.423	3.55726	4.17949	0.005	0.275	0.253	484.3362	0.153
2019	Rollers	121	175	0.231	2.93251	2.69941	0.005	0.124	0.114	482.4531	0.153
2019	Rollers	176	250	0.21	1.24854	2.88327	0.005	0.092	0.084	483.7769	0.153
2019	Rollers	251	500	0.234	2.10142	2.90839	0.005	0.111	0.102	489.9774	0.155
2020	Rollers	6	15	0.926	4.72504	4.53426	0.005	0.329	0.303	525.8798	0.17
2020	Rollers	16	25	0.926	4.72504	4.53426	0.005	0.329	0.303	525.8798	0.17
2020	Rollers	26	50	0.926	4.72504	4.53426	0.005	0.329	0.303	525.8798	0.17
2020	Rollers	51	120	0.388	3.53135	3.88153	0.005	0.247	0.228	473.8594	0.153
2020	Rollers	121	175	0.215	2.93333	2.45176	0.005	0.113	0.104	471.9177	0.153
2020	Rollers	176	250	0.209	1.25343	2.75095	0.005	0.089	0.082	473.3669	0.153
2020	Rollers	251	500	0.235	2.11346	2.82823	0.005	0.109	0.101	479.3254	0.155
2021	Rollers	6	15	0.847	4.59681	4.35097	0.005	0.294	0.27	525.7908	0.17
2021	Rollers	16	25	0.847	4.59681	4.35097	0.005	0.294	0.27	525.7908	0.17
2021	Rollers	26	50	0.847	4.59681	4.35097	0.005	0.294	0.27	525.7908	0.17
2021	Rollers	51	120	0.353	3.50719	3.5889	0.005	0.219	0.202	473.9012	0.153
2021	Rollers	121	175	0.193	2.9256	2.11691	0.005	0.097	0.09	471.9799	0.153
2021	Rollers	176	250	0.196	1.22849	2.49332	0.005	0.081	0.075	473.4704	0.153
2021	Rollers	251	500	0.221	1.94995	2.58936	0.005	0.1	0.092	479.3294	0.155
2022	Rollers	6	15	0.738	4.40241	4.12773	0.005	0.25	0.23	525.691	0.17
2022	Rollers	16	25	0.738	4.40241	4.12773	0.005	0.25	0.23	525.691	0.17
2022	Rollers	26	50	0.738	4.40241	4.12773	0.005	0.25	0.23	525.691	0.17
2022	Rollers	51	120	0.31	3.46973	3.21896	0.005	0.186	0.171	473.9291	0.153
2022	Rollers	121	175	0.164	2.91331	1.71408	0.005	0.079	0.072	471.9475	0.153
2022	Rollers	176	250	0.187	1.22821	2.2116	0.005	0.077	0.071	473.5135	0.153
2022	Rollers	251	500	0.218	1.95495	2.46341	0.005	0.097	0.089	478.9817	0.155
2023	Rollers	6	15	0.661	4.25236	3.9211	0.005	0.212	0.195	525.8616	0.17
2023	Rollers	16	25	0.661	4.25236	3.9211	0.005	0.212	0.195	525.8616	0.17
2023	Rollers	26	50	0.661	4.25236	3.9211	0.005	0.212	0.195	525.8616	0.17
2023	Rollers	51	120	0.287	3.45461	3.00302	0.005	0.165	0.152	473.9363	0.153
2023	Rollers	121	175	0.15	2.90949	1.4833	0.005	0.068	0.062	471.9351	0.153
2023	Rollers	176	250	0.188	1.23448	2.17272	0.005	0.076	0.07	473.5164	0.153
2023	Rollers	251	500	0.211	1.95626	2.29003	0.005	0.093	0.085	478.3028	0.155
2024	Rollers	6	15	0.62	4.20667	3.82449	0.005	0.192	0.177	525.9565	0.17
2024	Rollers	16	25	0.62	4.20667	3.82449	0.005	0.192	0.177	525.9565	0.17
2024	Rollers	26	50	0.62	4.20667	3.82449	0.005	0.192	0.177	525.9565	0.17
2024	Rollers	51	120	0.272	3.45055	2.843	0.005	0.15	0.138	474.0072	0.153
2024	Rollers	121	175	0.141	2.91426	1.32428	0.005	0.061	0.056	472.012	0.153
2024	Rollers	176	250	0.179	1.21417	1.97675	0.005	0.07	0.064	473.512	0.153
2024	Rollers	251	500	0.21	1.96121	2.21612	0.005	0.09	0.083	477.9001	0.155
2025	Rollers	6	15	0.569	4.12543	3.68893	0.005	0.167	0.154	526.1406	0.17
2025	Rollers	16	25	0.569	4.12543	3.68893	0.005	0.167	0.154	526.1406	0.17
2025	Rollers	26	50	0.569	4.12543	3.68893	0.005	0.167	0.154	526.1406	0.17
2025	Rollers	51	120	0.255	3.44432	2.69137	0.005	0.135	0.125	473.851	0.153
2025	Rollers	121	175	0.127	2.90859	1.10088	0.005	0.049	0.045	471.9696	0.153
2025	Rollers	176	250	0.173	1.21477	1.78252	0.005	0.066	0.06	473.6813	0.153
2025	Rollers	251	500	0.212	1.96754	2.19998	0.005	0.09	0.083	477.5732	0.154
2030	Rollers	6	15	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059

CalEEMod Appendix D Default Data - Off-Road Equipment Emission Factors

Year	EquipmentType	Low Hp	High Hp	ROGg/bhp-hr	CO ₂ g/bhp-hr	NOX ₂ g/bhp-hr	SO ₂ g/bhp-hr	PM10 ₂ g/bhp-hr	PM2.5g/bhp-hr	CO ₂ g/bhp-hr	CH ₄ g/bhp-hr
2030	Rollers	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2030	Rollers	26	50	0.587	4.784	3.48	0.007	0.073	0.073	568.299	0.053
2030	Rollers	51	120	0.299	3.639	1.95	0.006	0.066	0.066	568.299	0.027
2030	Rollers	121	175	0.223	3.203	0.907	0.006	0.042	0.042	568.299	0.02
2030	Rollers	176	250	0.195	1.099	0.745	0.006	0.024	0.024	568.299	0.017
2030	Rollers	251	500	0.193	1.056	0.697	0.005	0.023	0.023	568.299	0.017
2035	Rollers	6	15	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059
2035	Rollers	16	25	0.685	2.34	4.332	0.007	0.161	0.161	568.3	0.061
2035	Rollers	26	50	0.507	4.711	3.28	0.007	0.038	0.038	568.299	0.045
2035	Rollers	51	120	0.258	3.629	1.65	0.006	0.035	0.035	568.299	0.023
2035	Rollers	121	175	0.184	3.204	0.523	0.006	0.023	0.023	568.299	0.016
2035	Rollers	176	250	0.173	1.091	0.465	0.006	0.016	0.016	568.299	0.015
2035	Rollers	251	500	0.172	1.048	0.442	0.005	0.016	0.016	568.3	0.015
2040	Rollers	6	15	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059
2040	Rollers	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2040	Rollers	26	50	0.469	4.682	3.207	0.007	0.024	0.024	568.299	0.042
2040	Rollers	51	120	0.24	3.625	1.525	0.006	0.021	0.021	568.299	0.021
2040	Rollers	121	175	0.168	3.205	0.373	0.006	0.015	0.015	568.299	0.015
2040	Rollers	176	250	0.165	1.092	0.348	0.006	0.012	0.012	568.299	0.014
2040	Rollers	251	500	0.165	1.048	0.341	0.005	0.012	0.012	568.299	0.014
2017	Shredders	3	5	18.008	458.475	7.477	0.029	0.557	0.557	858.879	1.012
2017	Shredders	6	15	16.635	462.285	6.549	0.035	7.199	7.199	858.879	1.033
2018	Shredders	3	5	17.808	455.299	7.491	0.029	0.504	0.504	858.879	1.001
2018	Shredders	6	15	15.12	459.444	6.576	0.035	7.199	7.199	858.879	0.939
2019	Shredders	3	5	17.638	452.882	7.502	0.029	0.473	0.473	858.879	0.992
2019	Shredders	6	15	13.778	457.456	6.599	0.035	7.199	7.199	858.879	0.856
2020	Shredders	3	5	17.489	450.769	7.511	0.029	0.447	0.447	858.879	0.983
2020	Shredders	6	15	12.601	455.916	6.618	0.035	7.199	7.199	858.879	0.783
2021	Shredders	3	5	17.348	449.038	7.516	0.029	0.422	0.422	858.879	0.975
2021	Shredders	6	15	11.563	454.545	6.635	0.035	7.199	7.199	858.879	0.718
2022	Shredders	3	5	17.25	447.183	7.527	0.029	0.399	0.399	858.879	0.97
2022	Shredders	6	15	10.763	453.447	6.649	0.035	7.199	7.199	858.879	0.668
2023	Shredders	3	5	17.154	445.909	7.53	0.029	0.379	0.379	858.879	0.965
2023	Shredders	6	15	10.088	452.461	6.66	0.035	7.199	7.199	858.879	0.627
2024	Shredders	3	5	17.084	444.654	7.537	0.029	0.36	0.36	858.879	0.961
2024	Shredders	6	15	9.575	451.691	6.669	0.035	7.199	7.199	858.879	0.595
2025	Shredders	3	5	17.02	443.666	7.54	0.029	0.343	0.343	858.879	0.957
2025	Shredders	6	15	9.157	451.013	6.676	0.035	7.2	7.2	858.879	0.569
2030	Shredders	3	5	16.911	441.143	7.547	0.029	0.287	0.287	858.879	0.952
2030	Shredders	6	15	8.653	449.536	6.686	0.035	7.199	7.199	858.879	0.537
2035	Shredders	3	5	16.893	440.552	7.546	0.029	0.279	0.279	858.879	0.952
2035	Shredders	6	15	8.648	449.319	6.686	0.035	7.199	7.199	858.879	0.537
2040	Shredders	3	5	16.881	440.169	7.543	0.029	0.279	0.279	858.879	0.952
2040	Shredders	6	15	8.648	449.319	6.686	0.035	7.199	7.199	858.879	0.537
2017	SkidSteerLoaders	16	25	0.568	3.91907	4.11272	0.005	0.217	0.2	556.7144	0.171
2017	SkidSteerLoaders	26	50	0.568	3.91907	4.11272	0.005	0.217	0.2	556.7144	0.171
2017	SkidSteerLoaders	51	120	0.255	3.31863	3.28618	0.005	0.177	0.162	498.3256	0.153
2018	SkidSteerLoaders	16	25	0.487	3.78725	3.88962	0.005	0.178	0.164	547.5575	0.17
2018	SkidSteerLoaders	26	50	0.487	3.78725	3.88962	0.005	0.178	0.164	547.5575	0.17
2018	SkidSteerLoaders	51	120	0.216	3.28204	2.86	0.005	0.14	0.129	490.0935	0.153

CalEEMod Appendix D Default Data - Off-Road Equipment Emission Factors

Year	EquipmentType	Low Hp	High Hp	ROGg/bhp-hr	CO ₂ g/bhp-hr	NOX ₂ g/bhp-hr	SO ₂ g/bhp-hr	PM10 ₂ g/bhp-hr	PM2.5g/bhp-hr	CO ₂ g/bhp-hr	CH ₄ g/bhp-hr
2019	SkidSteerLoaders	16	25	0.446	3.73957	3.75009	0.005	0.154	0.141	539.2667	0.171
2019	SkidSteerLoaders	26	50	0.446	3.73957	3.75009	0.005	0.154	0.141	539.2667	0.171
2019	SkidSteerLoaders	51	120	0.199	3.27736	2.65586	0.005	0.122	0.112	482.3844	0.153
2020	SkidSteerLoaders	16	25	0.439	3.76397	3.69113	0.005	0.145	0.133	527.7577	0.171
2020	SkidSteerLoaders	26	50	0.439	3.76397	3.69113	0.005	0.145	0.133	527.7577	0.171
2020	SkidSteerLoaders	51	120	0.188	3.2771	2.5046	0.005	0.108	0.1	471.9075	0.153
2021	SkidSteerLoaders	16	25	0.409	3.73158	3.57304	0.005	0.126	0.116	527.4501	0.171
2021	SkidSteerLoaders	26	50	0.409	3.73158	3.57304	0.005	0.126	0.116	527.4501	0.171
2021	SkidSteerLoaders	51	120	0.178	3.27687	2.36588	0.005	0.096	0.089	471.9774	0.153
2022	SkidSteerLoaders	16	25	0.365	3.65597	3.43256	0.005	0.103	0.095	527.2726	0.171
2022	SkidSteerLoaders	26	50	0.365	3.65597	3.43256	0.005	0.103	0.095	527.2726	0.171
2022	SkidSteerLoaders	51	120	0.164	3.27037	2.18922	0.005	0.081	0.075	472.4321	0.153
2023	SkidSteerLoaders	16	25	0.353	3.65358	3.37057	0.005	0.093	0.086	527.4231	0.171
2023	SkidSteerLoaders	26	50	0.353	3.65358	3.37057	0.005	0.093	0.086	527.4231	0.171
2023	SkidSteerLoaders	51	120	0.153	3.26613	2.03854	0.005	0.069	0.063	472.656	0.153
2024	SkidSteerLoaders	16	25	0.349	3.67076	3.34552	0.005	0.089	0.082	527.8005	0.171
2024	SkidSteerLoaders	26	50	0.349	3.67076	3.34552	0.005	0.089	0.082	527.8005	0.171
2024	SkidSteerLoaders	51	120	0.147	3.26403	1.94841	0.005	0.063	0.058	472.847	0.153
2025	SkidSteerLoaders	16	25	0.341	3.6601	3.30934	0.005	0.084	0.077	527.8608	0.171
2025	SkidSteerLoaders	26	50	0.341	3.6601	3.30934	0.005	0.084	0.077	527.8608	0.171
2025	SkidSteerLoaders	51	120	0.14	3.25156	1.86736	0.005	0.057	0.052	472.6295	0.153
2030	SkidSteerLoaders	16	25	0.685	2.34	4.332	0.007	0.162	0.162	568.299	0.061
2030	SkidSteerLoaders	26	50	0.411	4.386	3.128	0.007	0.018	0.018	568.299	0.037
2030	SkidSteerLoaders	51	120	0.214	3.538	1.477	0.006	0.017	0.017	568.299	0.019
2035	SkidSteerLoaders	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2035	SkidSteerLoaders	26	50	0.411	4.39	3.097	0.007	0.015	0.015	568.299	0.037
2035	SkidSteerLoaders	51	120	0.211	3.54	1.442	0.006	0.014	0.014	568.299	0.019
2040	SkidSteerLoaders	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2040	SkidSteerLoaders	26	50	0.411	4.392	3.093	0.007	0.014	0.014	568.299	0.037
2040	SkidSteerLoaders	51	120	0.211	3.54	1.435	0.006	0.013	0.013	568.3	0.019
2017	Tractors/Loaders/Backhoes	16	25	1.194	5.68921	5.10958	0.005	0.433	0.398	544.9286	0.167
2017	Tractors/Loaders/Backhoes	26	50	1.194	5.68921	5.10958	0.005	0.433	0.398	544.9286	0.167
2017	Tractors/Loaders/Backhoes	51	120	0.5	3.7818	4.8087	0.005	0.362	0.333	502.7952	0.154
2017	Tractors/Loaders/Backhoes	121	175	0.354	3.19961	3.87876	0.005	0.197	0.181	493.912	0.151
2017	Tractors/Loaders/Backhoes	176	250	0.291	1.30369	4.04062	0.005	0.132	0.121	496.8449	0.152
2017	Tractors/Loaders/Backhoes	251	500	0.272	1.73851	3.48988	0.005	0.122	0.112	497.1129	0.152
2017	Tractors/Loaders/Backhoes	501	750	0.296	1.64567	3.86196	0.005	0.139	0.128	492.9529	0.151
2018	Tractors/Loaders/Backhoes	16	25	0.992	5.31043	4.76441	0.005	0.363	0.334	536.1115	0.167
2018	Tractors/Loaders/Backhoes	26	50	0.992	5.31043	4.76441	0.005	0.363	0.334	536.1115	0.167
2018	Tractors/Loaders/Backhoes	51	120	0.42	3.69155	4.15444	0.005	0.294	0.271	494.1237	0.154
2018	Tractors/Loaders/Backhoes	121	175	0.297	3.13727	3.16806	0.005	0.16	0.147	485.7754	0.151
2018	Tractors/Loaders/Backhoes	176	250	0.259	1.24197	3.45965	0.005	0.112	0.103	489.4562	0.152
2018	Tractors/Loaders/Backhoes	251	500	0.222	1.44545	2.66877	0.005	0.092	0.085	486.2939	0.151
2018	Tractors/Loaders/Backhoes	501	750	0.271	1.60068	3.40235	0.005	0.124	0.114	485.0099	0.151
2019	Tractors/Loaders/Backhoes	16	25	0.92	5.20327	4.60928	0.005	0.33	0.304	527.6843	0.167
2019	Tractors/Loaders/Backhoes	26	50	0.92	5.20327	4.60928	0.005	0.33	0.304	527.6843	0.167
2019	Tractors/Loaders/Backhoes	51	120	0.368	3.63777	3.69257	0.005	0.247	0.227	485.8548	0.154
2019	Tractors/Loaders/Backhoes	121	175	0.27	3.12158	2.78412	0.005	0.14	0.129	477.9151	0.151
2019	Tractors/Loaders/Backhoes	176	250	0.245	1.22027	3.14683	0.005	0.102	0.094	481.4206	0.152
2019	Tractors/Loaders/Backhoes	251	500	0.206	1.38918	2.34458	0.005	0.082	0.075	479.0826	0.152

CalEEMod Appendix D Default Data - Off-Road Equipment Emission Factors

Year	EquipmentType	Low Hp	High Hp	ROGg/bhp-hr	CO,g/bhp-hr	NOX,g/bhp-hr	SO2,g/bhp-hr	PM10,g/bhp-hr	PM2_5,g/bhp-hr	CO2,g/bhp-hr	CH4,g/bhp-hr
2019	Tractors/Loaders/Backhoes	501	750	0.262	1.6025	3.12046	0.005	0.117	0.107	478.9216	0.152
2020	Tractors/Loaders/Backhoes	16	25	0.83	5.03491	4.39784	0.005	0.288	0.265	515.874	0.167
2020	Tractors/Loaders/Backhoes	26	50	0.83	5.03491	4.39784	0.005	0.288	0.265	515.874	0.167
2020	Tractors/Loaders/Backhoes	51	120	0.331	3.60147	3.32571	0.005	0.21	0.193	475.1543	0.154
2020	Tractors/Loaders/Backhoes	121	175	0.246	3.10518	2.41467	0.005	0.122	0.112	467.5132	0.151
2020	Tractors/Loaders/Backhoes	176	250	0.225	1.19592	2.73794	0.005	0.09	0.083	470.4998	0.152
2020	Tractors/Loaders/Backhoes	251	500	0.194	1.35815	2.07976	0.005	0.073	0.067	468.2447	0.151
2020	Tractors/Loaders/Backhoes	501	750	0.268	1.60984	3.11926	0.005	0.117	0.108	468.6602	0.152
2021	Tractors/Loaders/Backhoes	16	25	0.756	4.90172	4.22643	0.005	0.254	0.234	515.1213	0.167
2021	Tractors/Loaders/Backhoes	26	50	0.756	4.90172	4.22643	0.005	0.254	0.234	515.1213	0.167
2021	Tractors/Loaders/Backhoes	51	120	0.296	3.57072	2.995	0.005	0.177	0.162	475.3621	0.154
2021	Tractors/Loaders/Backhoes	121	175	0.221	3.0907	2.06221	0.005	0.104	0.096	467.5285	0.151
2021	Tractors/Loaders/Backhoes	176	250	0.209	1.18606	2.36922	0.005	0.08	0.074	470.5716	0.152
2021	Tractors/Loaders/Backhoes	251	500	0.179	1.34147	1.776	0.005	0.064	0.059	469.3025	0.152
2021	Tractors/Loaders/Backhoes	501	750	0.247	1.43254	2.75417	0.005	0.104	0.096	466.4564	0.151
2022	Tractors/Loaders/Backhoes	16	25	0.688	4.75954	4.03024	0.005	0.218	0.2	514.4613	0.166
2022	Tractors/Loaders/Backhoes	26	50	0.688	4.75954	4.03024	0.005	0.218	0.2	514.4613	0.166
2022	Tractors/Loaders/Backhoes	51	120	0.26	3.53551	2.64718	0.005	0.142	0.131	475.8975	0.154
2022	Tractors/Loaders/Backhoes	121	175	0.2	3.07944	1.75274	0.005	0.089	0.082	467.8004	0.151
2022	Tractors/Loaders/Backhoes	176	250	0.187	1.16248	1.94251	0.005	0.067	0.062	470.1236	0.152
2022	Tractors/Loaders/Backhoes	251	500	0.16	1.28026	1.43694	0.005	0.053	0.049	469.2562	0.152
2022	Tractors/Loaders/Backhoes	501	750	0.232	1.35272	2.4532	0.005	0.094	0.087	466.6327	0.151
2023	Tractors/Loaders/Backhoes	16	25	0.621	4.62935	3.85698	0.005	0.185	0.17	513.7962	0.166
2023	Tractors/Loaders/Backhoes	26	50	0.621	4.62935	3.85698	0.005	0.185	0.17	513.7962	0.166
2023	Tractors/Loaders/Backhoes	51	120	0.239	3.52504	2.42607	0.005	0.12	0.11	476.4307	0.154
2023	Tractors/Loaders/Backhoes	121	175	0.184	3.0777	1.52095	0.005	0.077	0.07	468.821	0.152
2023	Tractors/Loaders/Backhoes	176	250	0.169	1.14809	1.58768	0.005	0.058	0.053	469.7518	0.152
2023	Tractors/Loaders/Backhoes	251	500	0.152	1.27923	1.24708	0.005	0.047	0.043	469.4652	0.152
2023	Tractors/Loaders/Backhoes	501	750	0.234	1.36081	2.41861	0.005	0.095	0.087	466.6756	0.151
2024	Tractors/Loaders/Backhoes	16	25	0.59	4.60899	3.76811	0.005	0.166	0.153	513.8517	0.166
2024	Tractors/Loaders/Backhoes	26	50	0.59	4.60899	3.76811	0.005	0.166	0.153	513.8517	0.166
2024	Tractors/Loaders/Backhoes	51	120	0.227	3.5318	2.28795	0.005	0.105	0.097	476.7313	0.154
2024	Tractors/Loaders/Backhoes	121	175	0.176	3.08913	1.37643	0.005	0.068	0.063	469.4029	0.152
2024	Tractors/Loaders/Backhoes	176	250	0.168	1.15125	1.49113	0.005	0.054	0.05	469.9143	0.152
2024	Tractors/Loaders/Backhoes	251	500	0.15	1.277	1.16321	0.005	0.044	0.041	470.0841	0.152
2024	Tractors/Loaders/Backhoes	501	750	0.221	1.31051	2.21548	0.005	0.085	0.079	466.6381	0.151
2025	Tractors/Loaders/Backhoes	16	25	0.55	4.55974	3.66186	0.005	0.145	0.133	513.8025	0.166
2025	Tractors/Loaders/Backhoes	26	50	0.55	4.55974	3.66186	0.005	0.145	0.133	513.8025	0.166
2025	Tractors/Loaders/Backhoes	51	120	0.209	3.52242	2.10918	0.005	0.085	0.079	477.188	0.154
2025	Tractors/Loaders/Backhoes	121	175	0.162	3.08323	1.18039	0.005	0.058	0.054	469.3289	0.152
2025	Tractors/Loaders/Backhoes	176	250	0.154	1.14554	1.23458	0.005	0.047	0.044	470.5976	0.152
2025	Tractors/Loaders/Backhoes	251	500	0.144	1.23405	1.04575	0.005	0.039	0.036	470.9102	0.152
2025	Tractors/Loaders/Backhoes	501	750	0.187	1.26139	1.64868	0.005	0.067	0.062	466.4517	0.151
2030	Tractors/Loaders/Backhoes	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2030	Tractors/Loaders/Backhoes	26	50	0.539	4.966	3.299	0.007	0.033	0.033	568.299	0.048
2030	Tractors/Loaders/Backhoes	51	120	0.272	3.705	1.624	0.006	0.03	0.03	568.299	0.024
2030	Tractors/Loaders/Backhoes	121	175	0.193	3.273	0.485	0.006	0.02	0.02	568.299	0.017
2030	Tractors/Loaders/Backhoes	176	250	0.183	1.115	0.418	0.006	0.014	0.014	568.299	0.016
2030	Tractors/Loaders/Backhoes	251	500	0.182	1.066	0.403	0.006	0.014	0.014	568.299	0.016
2030	Tractors/Loaders/Backhoes	501	750	0.182	1.066	0.407	0.006	0.014	0.014	568.299	0.016

CalEEMod Appendix D Default Data - Off-Road Equipment Emission Factors

Year	EquipmentType	Low Hp	High Hp	ROGg/bhp-hr	CO,g/bhp-hr	NOX,g/bhp-hr	SO2,g/bhp-hr	PM10,g/bhp-hr	PM2_5,g/bhp-hr	CO2,g/bhp-hr	CH4,g/bhp-hr
2035	Tractors/Loaders/Backhoes	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2035	Tractors/Loaders/Backhoes	26	50	0.515	4.949	3.244	0.007	0.022	0.022	568.299	0.046
2035	Tractors/Loaders/Backhoes	51	120	0.258	3.703	1.521	0.006	0.02	0.02	568.299	0.023
2035	Tractors/Loaders/Backhoes	121	175	0.179	3.275	0.348	0.006	0.015	0.015	568.299	0.016
2035	Tractors/Loaders/Backhoes	176	250	0.177	1.115	0.331	0.006	0.012	0.012	568.299	0.016
2035	Tractors/Loaders/Backhoes	251	500	0.177	1.066	0.326	0.006	0.012	0.012	568.299	0.015
2035	Tractors/Loaders/Backhoes	501	750	0.177	1.066	0.327	0.006	0.012	0.012	568.299	0.015
2040	Tractors/Loaders/Backhoes	16	25	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
2040	Tractors/Loaders/Backhoes	26	50	0.508	4.946	3.22	0.007	0.018	0.018	568.299	0.045
2040	Tractors/Loaders/Backhoes	51	120	0.254	3.703	1.485	0.006	0.016	0.016	568.299	0.022
2040	Tractors/Loaders/Backhoes	121	175	0.175	3.276	0.305	0.006	0.012	0.012	568.299	0.015
2040	Tractors/Loaders/Backhoes	176	250	0.174	1.116	0.297	0.006	0.011	0.011	568.3	0.015
2040	Tractors/Loaders/Backhoes	251	500	0.174	1.066	0.297	0.006	0.011	0.011	568.299	0.015
2040	Tractors/Loaders/Backhoes	501	750	0.174	1.066	0.297	0.006	0.011	0.011	568.299	0.015

EMFAC2017 On-Road Vehicle Emission Rate Calculations

calendar_year	season_month	sub_area	vehicle_class	fuel	pollutant	emission	vmt	g/mile	aggregate EF (g/mi)
2018	Annual	Los Angeles (SC)	HHDT	Dsl	CH4	0.0827	6221998.3003	0.0121	
2018	Annual	Los Angeles (SC)	HHDT	Gas	CH4	0.0013	5894.6769	0.1955	
2018	Annual	Los Angeles (SC)	HHDT	NG	CH4	0.5193	77453.0337	6.0823	0.086790
2018	Annual	Los Angeles (SC)	LDA	Dsl	CH4	0.0019	1030226.7312	0.0017	
2018	Annual	Los Angeles (SC)	LDA	Gas	CH4	2.3520	152352408.3387	0.0140	0.013922
2018	Annual	Los Angeles (SC)	LDT1	Dsl	CH4	0.0001	9678.8484	0.0112	
2018	Annual	Los Angeles (SC)	LDT1	Gas	CH4	0.4518	15417610.8716	0.0266	0.026574
2018	Annual	Los Angeles (SC)	LDT2	Dsl	CH4	0.0004	247931.8140	0.0014	
2018	Annual	Los Angeles (SC)	LDT2	Gas	CH4	1.0999	50345385.8197	0.0198	0.019728
2018	Annual	Los Angeles (SC)	LHDT1	Dsl	CH4	0.0098	1981420.1402	0.0045	
2018	Annual	Los Angeles (SC)	LHDT1	Gas	CH4	0.1272	4057201.8898	0.0284	0.020573
2018	Annual	Los Angeles (SC)	LHDT2	Dsl	CH4	0.0037	772852.4144	0.0044	
2018	Annual	Los Angeles (SC)	LHDT2	Gas	CH4	0.0183	620060.9911	0.0267	0.014317
2018	Annual	Los Angeles (SC)	MHDT	Dsl	CH4	0.0448	3646765.8291	0.0111	
2018	Annual	Los Angeles (SC)	MHDT	Gas	CH4	0.0448	791158.0454	0.0513	0.018300
2018	Annual	Los Angeles (SC)	HHDT	Dsl	CO	8.3803	6221998.3003	1.2219	
2018	Annual	Los Angeles (SC)	HHDT	Gas	CO	0.3542	5894.6769	54.5092	
2018	Annual	Los Angeles (SC)	HHDT	NG	CO	1.0960	77453.0337	12.8367	1.414363
2018	Annual	Los Angeles (SC)	LDA	Dsl	CO	0.4187	1030226.7312	0.3687	
2018	Annual	Los Angeles (SC)	LDA	Gas	CO	232.6997	152352408.3387	1.3856	1.378782
2018	Annual	Los Angeles (SC)	LDT1	Dsl	CO	0.0141	9678.8484	1.3214	
2018	Annual	Los Angeles (SC)	LDT1	Gas	CO	46.4257	15417610.8716	2.7317	2.730837
2018	Annual	Los Angeles (SC)	LDT2	Dsl	CO	0.0535	247931.8140	0.1957	
2018	Annual	Los Angeles (SC)	LDT2	Gas	CO	108.7589	50345385.8197	1.9598	1.951106
2018	Annual	Los Angeles (SC)	LHDT1	Dsl	CO	1.1757	1981420.1402	0.5383	
2018	Annual	Los Angeles (SC)	LHDT1	Gas	CO	10.6645	4057201.8898	2.3846	1.778764
2018	Annual	Los Angeles (SC)	LHDT2	Dsl	CO	0.4412	772852.4144	0.5178	
2018	Annual	Los Angeles (SC)	LHDT2	Gas	CO	1.4387	620060.9911	2.1048	1.224292
2018	Annual	Los Angeles (SC)	MHDT	Dsl	CO	3.2476	3646765.8291	0.8079	
2018	Annual	Los Angeles (SC)	MHDT	Gas	CO	5.3777	791158.0454	6.1664	1.763159
2018	Annual	Los Angeles (SC)	HHDT	Dsl	CO2	11569.3749	6221998.3003	1686.8458	
2018	Annual	Los Angeles (SC)	HHDT	Gas	CO2	15.0653	5894.6769	2318.5322	
2018	Annual	Los Angeles (SC)	HHDT	NG	CO2	315.3510	77453.0337	3693.6114	1712.086881
2018	Annual	Los Angeles (SC)	LDA	Dsl	CO2	273.3776	1030226.7312	240.7274	
2018	Annual	Los Angeles (SC)	LDA	Gas	CO2	52673.1988	152352408.3387	313.6431	313.153356
2018	Annual	Los Angeles (SC)	LDT1	Dsl	CO2	5.1701	9678.8484	484.5895	
2018	Annual	Los Angeles (SC)	LDT1	Gas	CO2	6190.9464	15417610.8716	364.2800	364.355495

EMFAC2017 On-Road Vehicle Emission Rate Calculations

calendar_year	season_month	sub_area	vehicle_class	fuel	pollutant	emission	vmt	g/mile	aggregate EF (g/mi)
2018	Annual	Los Angeles (SC)	LDT2	Dsl	CO2	90.0322	247931.8140	329.4283	
2018	Annual	Los Angeles (SC)	LDT2	Gas	CO2	22559.9215	50345385.8197	406.5119	406.134180
2018	Annual	Los Angeles (SC)	LHDT1	Dsl	CO2	1089.3129	1981420.1402	498.7369	
2018	Annual	Los Angeles (SC)	LHDT1	Gas	CO2	3828.1227	4057201.8898	855.9623	738.747831
2018	Annual	Los Angeles (SC)	LHDT2	Dsl	CO2	471.8091	772852.4144	553.8156	
2018	Annual	Los Angeles (SC)	LHDT2	Gas	CO2	672.1270	620060.9911	983.3595	745.028768
2018	Annual	Los Angeles (SC)	MHDT	Dsl	CO2	4281.5979	3646765.8291	1065.1074	
2018	Annual	Los Angeles (SC)	MHDT	Gas	CO2	1560.2206	791158.0454	1789.0322	1194.162962
2018	Annual	Los Angeles (SC)	HHDT	Dsl	N2O	1.8185	6221998.3003	0.2651	
2018	Annual	Los Angeles (SC)	HHDT	Gas	N2O	0.0013	5894.6769	0.2051	
2018	Annual	Los Angeles (SC)	HHDT	NG	N2O	0.0643	77453.0337	0.7530	0.271085
2018	Annual	Los Angeles (SC)	LDA	Dsl	N2O	0.0430	1030226.7312	0.0378	
2018	Annual	Los Angeles (SC)	LDA	Gas	N2O	1.7400	152352408.3387	0.0104	0.010545
2018	Annual	Los Angeles (SC)	LDT1	Dsl	N2O	0.0008	9678.8484	0.0762	
2018	Annual	Los Angeles (SC)	LDT1	Gas	N2O	0.3127	15417610.8716	0.0184	0.018438
2018	Annual	Los Angeles (SC)	LDT2	Dsl	N2O	0.0142	247931.8140	0.0518	
2018	Annual	Los Angeles (SC)	LDT2	Gas	N2O	0.8969	50345385.8197	0.0162	0.016336
2018	Annual	Los Angeles (SC)	LHDT1	Dsl	N2O	0.1712	1981420.1402	0.0784	
2018	Annual	Los Angeles (SC)	LHDT1	Gas	N2O	0.1624	4057201.8898	0.0363	0.050117
2018	Annual	Los Angeles (SC)	LHDT2	Dsl	N2O	0.0742	772852.4144	0.0871	
2018	Annual	Los Angeles (SC)	LHDT2	Gas	N2O	0.0262	620060.9911	0.0383	0.065364
2018	Annual	Los Angeles (SC)	MHDT	Dsl	N2O	0.6730	3646765.8291	0.1674	
2018	Annual	Los Angeles (SC)	MHDT	Gas	N2O	0.0454	791158.0454	0.0520	0.146846
2018	Annual	Los Angeles (SC)	HHDT	Dsl	NOx	42.8522	6221998.3003	6.2480	
2018	Annual	Los Angeles (SC)	HHDT	Gas	NOx	0.0450	5894.6769	6.9246	
2018	Annual	Los Angeles (SC)	HHDT	NG	NOx	0.5246	77453.0337	6.1446	6.247336
2018	Annual	Los Angeles (SC)	LDA	Dsl	NOx	0.1916	1030226.7312	0.1687	
2018	Annual	Los Angeles (SC)	LDA	Gas	NOx	17.4296	152352408.3387	0.1038	0.104221
2018	Annual	Los Angeles (SC)	LDT1	Dsl	NOx	0.0134	9678.8484	1.2538	
2018	Annual	Los Angeles (SC)	LDT1	Gas	NOx	4.4522	15417610.8716	0.2620	0.262590
2018	Annual	Los Angeles (SC)	LDT2	Dsl	NOx	0.0204	247931.8140	0.0745	
2018	Annual	Los Angeles (SC)	LDT2	Gas	NOx	11.7157	50345385.8197	0.2111	0.210438
2018	Annual	Los Angeles (SC)	LHDT1	Dsl	NOx	5.6306	1981420.1402	2.5779	
2018	Annual	Los Angeles (SC)	LHDT1	Gas	NOx	2.4423	4057201.8898	0.5461	1.212783
2018	Annual	Los Angeles (SC)	LHDT2	Dsl	NOx	2.0704	772852.4144	2.4303	
2018	Annual	Los Angeles (SC)	LHDT2	Gas	NOx	0.3919	620060.9911	0.5734	1.603668
2018	Annual	Los Angeles (SC)	MHDT	Dsl	NOx	17.9767	3646765.8291	4.4720	

EMFAC2017 On-Road Vehicle Emission Rate Calculations

calendar_year	season_month	sub_area	vehicle_class	fuel	pollutant	emission	vmt	g/mile	aggregate EF (g/mi)
2018	Annual	Los Angeles (SC)	MHDT	Gas	NOx	0.9384	791158.0454	1.0760	3.866561
2018	Annual	Los Angeles (SC)	HHDT	Dsl	PM10	1.2977	6221998.3003	0.1892	
2018	Annual	Los Angeles (SC)	HHDT	Gas	PM10	0.0006	5894.6769	0.0849	
2018	Annual	Los Angeles (SC)	HHDT	NG	PM10	0.0094	77453.0337	0.1100	0.188139
2018	Annual	Los Angeles (SC)	LDA	Dsl	PM10	0.0736	1030226.7312	0.0648	
2018	Annual	Los Angeles (SC)	LDA	Elec	PM10	0.0793	1607385.5710	0.0447	
2018	Annual	Los Angeles (SC)	LDA	Gas	PM10	7.9025	152352408.3387	0.0471	0.047150
2018	Annual	Los Angeles (SC)	LDT1	Dsl	PM10	0.0024	9678.8484	0.2271	
2018	Annual	Los Angeles (SC)	LDT1	Elec	PM10	0.0015	31333.3981	0.0447	
2018	Annual	Los Angeles (SC)	LDT1	Gas	PM10	0.8299	15417610.8716	0.0488	0.048936
2018	Annual	Los Angeles (SC)	LDT2	Dsl	PM10	0.0153	247931.8140	0.0559	
2018	Annual	Los Angeles (SC)	LDT2	Elec	PM10	0.0085	171904.9306	0.0447	
2018	Annual	Los Angeles (SC)	LDT2	Gas	PM10	2.6206	50345385.8197	0.0472	0.047255
2018	Annual	Los Angeles (SC)	LHDT1	Dsl	PM10	0.2390	1981420.1402	0.1094	
2018	Annual	Los Angeles (SC)	LHDT1	Gas	PM10	0.3857	4057201.8898	0.0862	0.052214
2018	Annual	Los Angeles (SC)	LHDT2	Dsl	PM10	0.1046	772852.4144	0.1228	
2018	Annual	Los Angeles (SC)	LHDT2	Gas	PM10	0.0675	620060.9911	0.0988	0.092854
2018	Annual	Los Angeles (SC)	MHDT	Dsl	PM10	1.1063	3646765.8291	0.2752	
2018	Annual	Los Angeles (SC)	MHDT	Gas	PM10	0.1255	791158.0454	0.1439	0.233024
2018	Annual	Los Angeles (SC)	HHDT	Dsl	PM2_5	0.8481	6221998.3003	0.1237	
2018	Annual	Los Angeles (SC)	HHDT	Gas	PM2_5	0.0002	5894.6769	0.0344	
2018	Annual	Los Angeles (SC)	HHDT	NG	PM2_5	0.0040	77453.0337	0.0472	0.122631
2018	Annual	Los Angeles (SC)	LDA	Dsl	PM2_5	0.0420	1030226.7312	0.0370	
2018	Annual	Los Angeles (SC)	LDA	Elec	PM2_5	0.0315	1607385.5710	0.0177	
2018	Annual	Los Angeles (SC)	LDA	Gas	PM2_5	3.3370	152352408.3387	0.0199	0.019962
2018	Annual	Los Angeles (SC)	LDT1	Dsl	PM2_5	0.0021	9678.8484	0.1922	
2018	Annual	Los Angeles (SC)	LDT1	Elec	PM2_5	0.0006	31333.3981	0.0177	
2018	Annual	Los Angeles (SC)	LDT1	Gas	PM2_5	0.3655	15417610.8716	0.0215	0.021605
2018	Annual	Los Angeles (SC)	LDT2	Dsl	PM2_5	0.0078	247931.8140	0.0284	
2018	Annual	Los Angeles (SC)	LDT2	Elec	PM2_5	0.0034	171904.9306	0.0177	
2018	Annual	Los Angeles (SC)	LDT2	Gas	PM2_5	1.1112	50345385.8197	0.0200	0.020056
2018	Annual	Los Angeles (SC)	LHDT1	Dsl	PM2_5	0.1219	1981420.1402	0.0558	
2018	Annual	Los Angeles (SC)	LHDT1	Gas	PM2_5	0.1629	4057201.8898	0.0364	0.022461
2018	Annual	Los Angeles (SC)	LHDT2	Dsl	PM2_5	0.0527	772852.4144	0.0619	
2018	Annual	Los Angeles (SC)	LHDT2	Gas	PM2_5	0.0285	620060.9911	0.0417	0.040635
2018	Annual	Los Angeles (SC)	MHDT	Dsl	PM2_5	0.7476	3646765.8291	0.1860	
2018	Annual	Los Angeles (SC)	MHDT	Gas	PM2_5	0.0525	791158.0454	0.0603	0.148617

EMFAC2017 On-Road Vehicle Emission Rate Calculations

calendar_year	season_month	sub_area	vehicle_class	fuel	pollutant	emission	vmt	g/mile	aggregate EF (g/mi)
2018	Annual	Los Angeles (SC)	HHDT	Dsl	ROG	1.7799	6221998.3003	0.2595	
2018	Annual	Los Angeles (SC)	HHDT	Gas	ROG	0.0109	5894.6769	1.6743	
2018	Annual	Los Angeles (SC)	HHDT	NG	ROG	0.0500	77453.0337	0.5857	0.264839
2018	Annual	Los Angeles (SC)	LDA	Dsl	ROG	0.0408	1030226.7312	0.0359	
2018	Annual	Los Angeles (SC)	LDA	Elec	ROG	0.0025	1607385.5710	0.0014	
2018	Annual	Los Angeles (SC)	LDA	Gas	ROG	21.6503	152352408.3387	0.1289	0.126977
2018	Annual	Los Angeles (SC)	LDT1	Dsl	ROG	0.0026	9678.8484	0.2416	
2018	Annual	Los Angeles (SC)	LDT1	Elec	ROG	0.0001	31333.3981	0.0017	
2018	Annual	Los Angeles (SC)	LDT1	Gas	ROG	5.5319	15417610.8716	0.3255	0.324790
2018	Annual	Los Angeles (SC)	LDT2	Dsl	ROG	0.0080	247931.8140	0.0293	
2018	Annual	Los Angeles (SC)	LDT2	Elec	ROG	0.0003	171904.9306	0.0015	
2018	Annual	Los Angeles (SC)	LDT2	Gas	ROG	10.7911	50345385.8197	0.1944	0.192987
2018	Annual	Los Angeles (SC)	LHDT1	Dsl	ROG	0.2105	1981420.1402	0.0964	
2018	Annual	Los Angeles (SC)	LHDT1	Gas	ROG	2.6872	4057201.8898	0.6009	0.220245
2018	Annual	Los Angeles (SC)	LHDT2	Dsl	ROG	0.0798	772852.4144	0.0937	
2018	Annual	Los Angeles (SC)	LHDT2	Gas	ROG	0.4132	620060.9911	0.6045	0.529359
2018	Annual	Los Angeles (SC)	MHDT	Dsl	ROG	0.9635	3646765.8291	0.2397	
2018	Annual	Los Angeles (SC)	MHDT	Gas	ROG	0.4661	791158.0454	0.5345	0.330520
2018	Annual	Los Angeles (SC)	HHDT	Dsl	SOx	0.1093	6221998.3003	0.0159	
2018	Annual	Los Angeles (SC)	HHDT	Gas	SOx	0.0001	5894.6769	0.0229	0.015943
2018	Annual	Los Angeles (SC)	LDA	Dsl	SOx	0.0026	1030226.7312	0.0023	
2018	Annual	Los Angeles (SC)	LDA	Gas	SOx	0.5212	152352408.3387	0.0031	0.003098
2018	Annual	Los Angeles (SC)	LDT1	Dsl	SOx	0.0000	9678.8484	0.0046	
2018	Annual	Los Angeles (SC)	LDT1	Gas	SOx	0.0613	15417610.8716	0.0036	0.003605
2018	Annual	Los Angeles (SC)	LDT2	Dsl	SOx	0.0009	247931.8140	0.0031	
2018	Annual	Los Angeles (SC)	LDT2	Gas	SOx	0.2232	50345385.8197	0.0040	0.004018
2018	Annual	Los Angeles (SC)	LHDT1	Dsl	SOx	0.0103	1981420.1402	0.0047	
2018	Annual	Los Angeles (SC)	LHDT1	Gas	SOx	0.0379	4057201.8898	0.0085	0.007238
2018	Annual	Los Angeles (SC)	LHDT2	Dsl	SOx	0.0045	772852.4144	0.0052	
2018	Annual	Los Angeles (SC)	LHDT2	Gas	SOx	0.0067	620060.9911	0.0097	0.007237
2018	Annual	Los Angeles (SC)	MHDT	Dsl	SOx	0.0405	3646765.8291	0.0101	
2018	Annual	Los Angeles (SC)	MHDT	Gas	SOx	0.0154	791158.0454	0.0177	0.011425
2023	Annual	Los Angeles (SC)	HHDT	Dsl	CH4	0.0206	6949256.2028	0.0027	
2023	Annual	Los Angeles (SC)	HHDT	Gas	CH4	0.0006	5904.5109	0.0952	
2023	Annual	Los Angeles (SC)	HHDT	NG	CH4	0.6258	113851.6430	4.9867	0.083040
2023	Annual	Los Angeles (SC)	LDA	Dsl	CH4	0.0014	1426244.8152	0.0009	
2023	Annual	Los Angeles (SC)	LDA	Gas	CH4	1.4350	149418105.5947	0.0087	0.008638

EMFAC2017 On-Road Vehicle Emission Rate Calculations

calendar_year	season_month	sub_area	vehicle_class	fuel	pollutant	emission	vmt	g/mile	aggregate EF (g/mi)
2023	Annual	Los Angeles (SC)	LDT1	Dsl	CH4	0.0001	6132.9220	0.0085	
2023	Annual	Los Angeles (SC)	LDT1	Gas	CH4	0.2872	17372474.5967	0.0150	0.014996
2023	Annual	Los Angeles (SC)	LDT2	Dsl	CH4	0.0005	404272.1374	0.0010	
2023	Annual	Los Angeles (SC)	LDT2	Gas	CH4	0.7187	52162943.3579	0.0125	0.012412
2023	Annual	Los Angeles (SC)	LHDT1	Dsl	CH4	0.0095	2893383.1066	0.0030	
2023	Annual	Los Angeles (SC)	LHDT1	Gas	CH4	0.0811	3800052.4079	0.0194	0.012280
2023	Annual	Los Angeles (SC)	LHDT2	Dsl	CH4	0.0037	1126544.0266	0.0030	
2023	Annual	Los Angeles (SC)	LHDT2	Gas	CH4	0.0126	625878.5235	0.0183	0.008430
2023	Annual	Los Angeles (SC)	MHDT	Dsl	CH4	0.0020	4246866.4962	0.0004	
2023	Annual	Los Angeles (SC)	MHDT	Gas	CH4	0.0267	797300.0842	0.0303	0.005147
2023	Annual	Los Angeles (SC)	HHDT	Dsl	CO	5.9317	6949256.2028	0.7744	
2023	Annual	Los Angeles (SC)	HHDT	Gas	CO	0.2181	5904.5109	33.5164	
2023	Annual	Los Angeles (SC)	HHDT	NG	CO	1.7631	113851.6430	14.0489	1.015498
2023	Annual	Los Angeles (SC)	LDA	Dsl	CO	0.4420	1426244.8152	0.2812	
2023	Annual	Los Angeles (SC)	LDA	Gas	CO	156.5973	149418105.5947	0.9508	0.944441
2023	Annual	Los Angeles (SC)	LDT1	Dsl	CO	0.0073	6132.9220	1.0747	
2023	Annual	Los Angeles (SC)	LDT1	Gas	CO	30.4194	17372474.5967	1.5885	1.588306
2023	Annual	Los Angeles (SC)	LDT2	Dsl	CO	0.0860	404272.1374	0.1931	
2023	Annual	Los Angeles (SC)	LDT2	Gas	CO	73.6860	52162943.3579	1.2815	1.273128
2023	Annual	Los Angeles (SC)	LHDT1	Dsl	CO	1.0450	2893383.1066	0.3277	
2023	Annual	Los Angeles (SC)	LHDT1	Gas	CO	6.5420	3800052.4079	1.5618	1.028300
2023	Annual	Los Angeles (SC)	LHDT2	Dsl	CO	0.4029	1126544.0266	0.3244	
2023	Annual	Los Angeles (SC)	LHDT2	Gas	CO	0.9342	625878.5235	1.3540	0.692166
2023	Annual	Los Angeles (SC)	MHDT	Dsl	CO	0.5330	4246866.4962	0.1139	
2023	Annual	Los Angeles (SC)	MHDT	Gas	CO	2.8370	797300.0842	3.2280	0.606086
2023	Annual	Los Angeles (SC)	HHDT	Dsl	CO2	11176.8921	6949256.2028	1459.0767	
2023	Annual	Los Angeles (SC)	HHDT	Gas	CO2	13.3156	5904.5109	2045.8396	
2023	Annual	Los Angeles (SC)	HHDT	NG	CO2	434.0350	113851.6430	3458.4445	1491.768076
2023	Annual	Los Angeles (SC)	LDA	Dsl	CO2	329.4658	1426244.8152	209.5615	
2023	Annual	Los Angeles (SC)	LDA	Gas	CO2	45485.2571	149418105.5947	276.1613	275.531589
2023	Annual	Los Angeles (SC)	LDT1	Dsl	CO2	3.1168	6132.9220	461.0326	
2023	Annual	Los Angeles (SC)	LDT1	Gas	CO2	6140.8908	17372474.5967	320.6750	320.724509
2023	Annual	Los Angeles (SC)	LDT2	Dsl	CO2	126.9347	404272.1374	284.8406	
2023	Annual	Los Angeles (SC)	LDT2	Gas	CO2	19609.0677	52162943.3579	341.0282	340.596043
2023	Annual	Los Angeles (SC)	LHDT1	Dsl	CO2	1469.0295	2893383.1066	460.5958	
2023	Annual	Los Angeles (SC)	LHDT1	Gas	CO2	3404.7600	3800052.4079	812.8161	660.561220
2023	Annual	Los Angeles (SC)	LHDT2	Dsl	CO2	635.0480	1126544.0266	511.3918	

EMFAC2017 On-Road Vehicle Emission Rate Calculations

calendar_year	season_month	sub_area	vehicle_class	fuel	pollutant	emission	vmt	g/mile	aggregate EF (g/mi)
2023	Annual	Los Angeles (SC)	LHDT2	Gas	CO2	643.7927	625878.5235	933.1499	662.022882
2023	Annual	Los Angeles (SC)	MHDT	Dsl	CO2	4332.3858	4246866.4962	925.4520	
2023	Annual	Los Angeles (SC)	MHDT	Gas	CO2	1476.6739	797300.0842	1680.1892	1044.748605
2023	Annual	Los Angeles (SC)	HHDT	Dsl	N2O	1.7569	6949256.2028	0.2293	
2023	Annual	Los Angeles (SC)	HHDT	Gas	N2O	0.0010	5904.5109	0.1463	
2023	Annual	Los Angeles (SC)	HHDT	NG	N2O	0.0885	113851.6430	0.7050	0.236938
2023	Annual	Los Angeles (SC)	LDA	Dsl	N2O	0.0518	1426244.8152	0.0329	
2023	Annual	Los Angeles (SC)	LDA	Gas	N2O	1.2220	149418105.5947	0.0074	0.007661
2023	Annual	Los Angeles (SC)	LDT1	Dsl	N2O	0.0005	6132.9220	0.0725	
2023	Annual	Los Angeles (SC)	LDT1	Gas	N2O	0.2190	17372474.5967	0.0114	0.011460
2023	Annual	Los Angeles (SC)	LDT2	Dsl	N2O	0.0200	404272.1374	0.0448	
2023	Annual	Los Angeles (SC)	LDT2	Gas	N2O	0.5872	52162943.3579	0.0102	0.010478
2023	Annual	Los Angeles (SC)	LHDT1	Dsl	N2O	0.2309	2893383.1066	0.0724	
2023	Annual	Los Angeles (SC)	LHDT1	Gas	N2O	0.1166	3800052.4079	0.0278	0.047106
2023	Annual	Los Angeles (SC)	LHDT2	Dsl	N2O	0.0998	1126544.0266	0.0804	
2023	Annual	Los Angeles (SC)	LHDT2	Gas	N2O	0.0202	625878.5235	0.0292	0.062121
2023	Annual	Los Angeles (SC)	MHDT	Dsl	N2O	0.6810	4246866.4962	0.1455	
2023	Annual	Los Angeles (SC)	MHDT	Gas	N2O	0.0274	797300.0842	0.0312	0.127407
2023	Annual	Los Angeles (SC)	HHDT	Dsl	NOx	25.8961	6949256.2028	3.3806	
2023	Annual	Los Angeles (SC)	HHDT	Gas	NOx	0.0257	5904.5109	3.9562	
2023	Annual	Los Angeles (SC)	HHDT	NG	NOx	0.4242	113851.6430	3.3800	3.381048
2023	Annual	Los Angeles (SC)	LDA	Dsl	NOx	0.1018	1426244.8152	0.0647	
2023	Annual	Los Angeles (SC)	LDA	Gas	NOx	9.6405	149418105.5947	0.0585	0.058590
2023	Annual	Los Angeles (SC)	LDT1	Dsl	NOx	0.0067	6132.9220	0.9876	
2023	Annual	Los Angeles (SC)	LDT1	Gas	NOx	2.5937	17372474.5967	0.1354	0.135742
2023	Annual	Los Angeles (SC)	LDT2	Dsl	NOx	0.0202	404272.1374	0.0454	
2023	Annual	Los Angeles (SC)	LDT2	Gas	NOx	6.2371	52162943.3579	0.1085	0.107987
2023	Annual	Los Angeles (SC)	LHDT1	Dsl	NOx	3.4333	2893383.1066	1.0765	
2023	Annual	Los Angeles (SC)	LHDT1	Gas	NOx	1.6139	3800052.4079	0.3853	0.684056
2023	Annual	Los Angeles (SC)	LHDT2	Dsl	NOx	1.2940	1126544.0266	1.0420	
2023	Annual	Los Angeles (SC)	LHDT2	Gas	NOx	0.2758	625878.5235	0.3997	0.812623
2023	Annual	Los Angeles (SC)	MHDT	Dsl	NOx	7.5454	4246866.4962	1.6118	
2023	Annual	Los Angeles (SC)	MHDT	Gas	NOx	0.4588	797300.0842	0.5221	1.439539
2023	Annual	Los Angeles (SC)	HHDT	Dsl	PM10	0.8858	6949256.2028	0.1156	
2023	Annual	Los Angeles (SC)	HHDT	Gas	PM10	0.0005	5904.5109	0.0831	
2023	Annual	Los Angeles (SC)	HHDT	NG	PM10	0.0132	113851.6430	0.1049	0.115433
2023	Annual	Los Angeles (SC)	LDA	Dsl	PM10	0.0835	1426244.8152	0.0531	

EMFAC2017 On-Road Vehicle Emission Rate Calculations

calendar_year	season_month	sub_area	vehicle_class	fuel	pollutant	emission	vmt	g/mile	aggregate EF (g/mi)
2023	Annual	Los Angeles (SC)	LDA	Elec	PM10	0.1878	3806341.9367	0.0447	
2023	Annual	Los Angeles (SC)	LDA	Gas	PM10	7.6856	149418105.5947	0.0467	0.046675
2023	Annual	Los Angeles (SC)	LDT1	Dsl	PM10	0.0012	6132.9220	0.1805	
2023	Annual	Los Angeles (SC)	LDT1	Elec	PM10	0.0097	196781.6242	0.0447	
2023	Annual	Los Angeles (SC)	LDT1	Gas	PM10	0.9103	17372474.5967	0.0475	0.047551
2023	Annual	Los Angeles (SC)	LDT2	Dsl	PM10	0.0226	404272.1374	0.0507	
2023	Annual	Los Angeles (SC)	LDT2	Elec	PM10	0.0288	584568.8418	0.0447	
2023	Annual	Los Angeles (SC)	LDT2	Gas	PM10	2.6903	52162943.3579	0.0468	0.046795
2023	Annual	Los Angeles (SC)	LHDT1	Dsl	PM10	0.3227	2893383.1066	0.1012	
2023	Annual	Los Angeles (SC)	LHDT1	Gas	PM10	0.3601	3800052.4079	0.0860	0.051992
2023	Annual	Los Angeles (SC)	LHDT2	Dsl	PM10	0.1443	1126544.0266	0.1162	
2023	Annual	Los Angeles (SC)	LHDT2	Gas	PM10	0.0680	625878.5235	0.0986	0.093508
2023	Annual	Los Angeles (SC)	MHDT	Dsl	PM10	0.6998	4246866.4962	0.1495	
2023	Annual	Los Angeles (SC)	MHDT	Gas	PM10	0.1262	797300.0842	0.1436	0.143035
2023	Annual	Los Angeles (SC)	HHDT	Dsl	PM2_5	0.4077	6949256.2028	0.0532	
2023	Annual	Los Angeles (SC)	HHDT	Gas	PM2_5	0.0002	5904.5109	0.0328	
2023	Annual	Los Angeles (SC)	HHDT	NG	PM2_5	0.0053	113851.6430	0.0423	0.053031
2023	Annual	Los Angeles (SC)	LDA	Dsl	PM2_5	0.0405	1426244.8152	0.0257	
2023	Annual	Los Angeles (SC)	LDA	Elec	PM2_5	0.0745	3806341.9367	0.0177	
2023	Annual	Los Angeles (SC)	LDA	Gas	PM2_5	3.2132	149418105.5947	0.0195	0.019523
2023	Annual	Los Angeles (SC)	LDT1	Dsl	PM2_5	0.0010	6132.9220	0.1476	
2023	Annual	Los Angeles (SC)	LDT1	Elec	PM2_5	0.0039	196781.6242	0.0177	
2023	Annual	Los Angeles (SC)	LDT1	Gas	PM2_5	0.3890	17372474.5967	0.0203	0.020327
2023	Annual	Los Angeles (SC)	LDT2	Dsl	PM2_5	0.0104	404272.1374	0.0234	
2023	Annual	Los Angeles (SC)	LDT2	Elec	PM2_5	0.0114	584568.8418	0.0177	
2023	Annual	Los Angeles (SC)	LDT2	Gas	PM2_5	1.1284	52162943.3579	0.0196	0.019632
2023	Annual	Los Angeles (SC)	LHDT1	Dsl	PM2_5	0.1529	2893383.1066	0.0480	
2023	Annual	Los Angeles (SC)	LHDT1	Gas	PM2_5	0.1514	3800052.4079	0.0362	0.022084
2023	Annual	Los Angeles (SC)	LHDT2	Dsl	PM2_5	0.0690	1126544.0266	0.0556	
2023	Annual	Los Angeles (SC)	LHDT2	Gas	PM2_5	0.0286	625878.5235	0.0415	0.040694
2023	Annual	Los Angeles (SC)	MHDT	Dsl	PM2_5	0.3075	4246866.4962	0.0657	
2023	Annual	Los Angeles (SC)	MHDT	Gas	PM2_5	0.0528	797300.0842	0.0600	0.062224
2023	Annual	Los Angeles (SC)	HHDT	Dsl	ROG	0.4440	6949256.2028	0.0580	
2023	Annual	Los Angeles (SC)	HHDT	Gas	ROG	0.0040	5904.5109	0.6142	
2023	Annual	Los Angeles (SC)	HHDT	NG	ROG	0.0392	113851.6430	0.3121	0.062513
2023	Annual	Los Angeles (SC)	LDA	Dsl	ROG	0.0295	1426244.8152	0.0188	
2023	Annual	Los Angeles (SC)	LDA	Elec	ROG	0.0055	3806341.9367	0.0013	

EMFAC2017 On-Road Vehicle Emission Rate Calculations

calendar_year	season_month	sub_area	vehicle_class	fuel	pollutant	emission	vmt	g/mile	aggregate EF (g/mi)	
2023	Annual	Los Angeles (SC)	LDA	Gas	ROG		14.5006	149418105.5947	0.0880	0.085266
2023	Annual	Los Angeles (SC)	LDT1	Dsl	ROG		0.0012	6132.9220	0.1826	
2023	Annual	Los Angeles (SC)	LDT1	Elec	ROG		0.0003	196781.6242	0.0013	
2023	Annual	Los Angeles (SC)	LDT1	Gas	ROG		3.8871	17372474.5967	0.2030	0.200716
2023	Annual	Los Angeles (SC)	LDT2	Dsl	ROG		0.0100	404272.1374	0.0225	
2023	Annual	Los Angeles (SC)	LDT2	Elec	ROG		0.0011	584568.8418	0.0017	
2023	Annual	Los Angeles (SC)	LDT2	Gas	ROG		7.9529	52162943.3579	0.1383	0.135928
2023	Annual	Los Angeles (SC)	LHDT1	Dsl	ROG		0.2043	2893383.1066	0.0641	
2023	Annual	Los Angeles (SC)	LHDT1	Gas	ROG		1.9668	3800052.4079	0.4695	0.156046
2023	Annual	Los Angeles (SC)	LHDT2	Dsl	ROG		0.0789	1126544.0266	0.0636	
2023	Annual	Los Angeles (SC)	LHDT2	Gas	ROG		0.3070	625878.5235	0.4450	0.384409
2023	Annual	Los Angeles (SC)	MHDT	Dsl	ROG		0.0421	4246866.4962	0.0090	
2023	Annual	Los Angeles (SC)	MHDT	Gas	ROG		0.2976	797300.0842	0.3386	0.103476
2023	Annual	Los Angeles (SC)	HHDT	Dsl	SOx		0.1056	6949256.2028	0.0138	
2023	Annual	Los Angeles (SC)	HHDT	Gas	SOx		0.0001	5904.5109	0.0202	0.047198
2023	Annual	Los Angeles (SC)	LDA	Dsl	SOx		0.0031	1426244.8152	0.0020	
2023	Annual	Los Angeles (SC)	LDA	Gas	SOx		0.4501	149418105.5947	0.0027	0.002726
2023	Annual	Los Angeles (SC)	LDT1	Dsl	SOx		0.0000	6132.9220	0.0044	
2023	Annual	Los Angeles (SC)	LDT1	Gas	SOx		0.0608	17372474.5967	0.0032	0.003174
2023	Annual	Los Angeles (SC)	LDT2	Dsl	SOx		0.0012	404272.1374	0.0027	
2023	Annual	Los Angeles (SC)	LDT2	Gas	SOx		0.1940	52162943.3579	0.0034	0.003370
2023	Annual	Los Angeles (SC)	LHDT1	Dsl	SOx		0.0139	2893383.1066	0.0044	
2023	Annual	Los Angeles (SC)	LHDT1	Gas	SOx		0.0337	3800052.4079	0.0080	0.006449
2023	Annual	Los Angeles (SC)	LHDT2	Dsl	SOx		0.0060	1126544.0266	0.0048	
2023	Annual	Los Angeles (SC)	LHDT2	Gas	SOx		0.0064	625878.5235	0.0092	0.006406
2023	Annual	Los Angeles (SC)	MHDT	Dsl	SOx		0.0409	4246866.4962	0.0087	
2023	Annual	Los Angeles (SC)	MHDT	Gas	SOx		0.0146	797300.0842	0.0166	0.009989
2028	Annual	Los Angeles (SC)	HHDT	Dsl	CH4		0.0225	7602762.1115	0.0027	
2028	Annual	Los Angeles (SC)	HHDT	Gas	CH4		0.0006	6900.3896	0.0757	
2028	Annual	Los Angeles (SC)	HHDT	NG	CH4		0.7189	145761.8800	4.4745	0.086791
2028	Annual	Los Angeles (SC)	LDA	Dsl	CH4		0.0009	1628613.7736	0.0005	
2028	Annual	Los Angeles (SC)	LDA	Gas	CH4		0.9843	146491484.1051	0.0061	0.006034
2028	Annual	Los Angeles (SC)	LDT1	Dsl	CH4		0.0000	3717.6202	0.0044	
2028	Annual	Los Angeles (SC)	LDT1	Gas	CH4		0.1929	18569860.9744	0.0094	0.009424
2028	Annual	Los Angeles (SC)	LDT2	Dsl	CH4		0.0006	495817.5553	0.0010	
2028	Annual	Los Angeles (SC)	LDT2	Gas	CH4		0.5250	53762862.3362	0.0089	0.008787
2028	Annual	Los Angeles (SC)	LHDT1	Dsl	CH4		0.0095	3465344.1978	0.0025	

EMFAC2017 On-Road Vehicle Emission Rate Calculations

calendar_year	season_month	sub_area	vehicle_class	fuel	pollutant	emission	vmt	g/mile	aggregate EF (g/mi)
2028	Annual	Los Angeles (SC)	LHDT1	Gas	CH4	0.0562	3691681.4796	0.0138	0.008316
2028	Annual	Los Angeles (SC)	LHDT2	Dsl	CH4	0.0037	1352695.5490	0.0025	
2028	Annual	Los Angeles (SC)	LHDT2	Gas	CH4	0.0092	626221.8181	0.0133	0.005936
2028	Annual	Los Angeles (SC)	MHDT	Dsl	CH4	0.0021	4683919.8002	0.0004	
2028	Annual	Los Angeles (SC)	MHDT	Gas	CH4	0.0210	822297.8140	0.0232	0.003813
2028	Annual	Los Angeles (SC)	HHDT	Dsl	CO	6.5425	7602762.1115	0.7807	
2028	Annual	Los Angeles (SC)	HHDT	Gas	CO	0.2302	6900.3896	30.2670	
2028	Annual	Los Angeles (SC)	HHDT	NG	CO	2.3551	145761.8800	14.6575	1.067717
2028	Annual	Los Angeles (SC)	LDA	Dsl	CO	0.4475	1628613.7736	0.2493	
2028	Annual	Los Angeles (SC)	LDA	Gas	CO	124.3544	146491484.1051	0.7701	0.764368
2028	Annual	Los Angeles (SC)	LDT1	Dsl	CO	0.0029	3717.6202	0.7058	
2028	Annual	Los Angeles (SC)	LDT1	Gas	CO	22.4001	18569860.9744	1.0943	1.094224
2028	Annual	Los Angeles (SC)	LDT2	Dsl	CO	0.1153	495817.5553	0.2110	
2028	Annual	Los Angeles (SC)	LDT2	Gas	CO	60.3326	53762862.3362	1.0180	1.010666
2028	Annual	Los Angeles (SC)	LHDT1	Dsl	CO	0.9996	3465344.1978	0.2617	
2028	Annual	Los Angeles (SC)	LHDT1	Gas	CO	4.8090	3691681.4796	1.1817	0.736262
2028	Annual	Los Angeles (SC)	LHDT2	Dsl	CO	0.3970	1352695.5490	0.2663	
2028	Annual	Los Angeles (SC)	LHDT2	Gas	CO	0.7148	626221.8181	1.0355	0.509678
2028	Annual	Los Angeles (SC)	MHDT	Dsl	CO	0.6214	4683919.8002	0.1204	
2028	Annual	Los Angeles (SC)	MHDT	Gas	CO	1.9515	822297.8140	2.1530	0.423904
2028	Annual	Los Angeles (SC)	HHDT	Dsl	CO2	11115.6549	7602762.1115	1326.3527	
2028	Annual	Los Angeles (SC)	HHDT	Gas	CO2	13.8723	6900.3896	1823.7670	
2028	Annual	Los Angeles (SC)	HHDT	NG	CO2	509.5662	145761.8800	3171.4072	1361.472788
2028	Annual	Los Angeles (SC)	LDA	Dsl	CO2	334.8733	1628613.7736	186.5339	
2028	Annual	Los Angeles (SC)	LDA	Gas	CO2	39330.2866	146491484.1051	243.5623	242.935287
2028	Annual	Los Angeles (SC)	LDT1	Dsl	CO2	1.6944	3717.6202	413.4698	
2028	Annual	Los Angeles (SC)	LDT1	Gas	CO2	5848.1382	18569860.9744	285.6961	285.721705
2028	Annual	Los Angeles (SC)	LDT2	Dsl	CO2	138.4264	495817.5553	253.2750	
2028	Annual	Los Angeles (SC)	LDT2	Gas	CO2	17322.1495	53762862.3362	292.2906	291.934030
2028	Annual	Los Angeles (SC)	LHDT1	Dsl	CO2	1625.9112	3465344.1978	425.6433	
2028	Annual	Los Angeles (SC)	LHDT1	Gas	CO2	3076.9024	3691681.4796	756.1098	596.101989
2028	Annual	Los Angeles (SC)	LHDT2	Dsl	CO2	705.7995	1352695.5490	473.3438	
2028	Annual	Los Angeles (SC)	LHDT2	Gas	CO2	600.3720	626221.8181	869.7363	598.780887
2028	Annual	Los Angeles (SC)	MHDT	Dsl	CO2	4405.7553	4683919.8002	853.3090	
2028	Annual	Los Angeles (SC)	MHDT	Gas	CO2	1399.1527	822297.8140	1543.5879	956.395121
2028	Annual	Los Angeles (SC)	HHDT	Dsl	N2O	1.7472	7602762.1115	0.2085	
2028	Annual	Los Angeles (SC)	HHDT	Gas	N2O	0.0010	6900.3896	0.1301	

EMFAC2017 On-Road Vehicle Emission Rate Calculations

calendar_year	season_month	sub_area	vehicle_class	fuel	pollutant	emission	vmt	g/mile	aggregate EF (g/mi)
2028	Annual	Los Angeles (SC)	HHDT	NG	N2O	0.1039	145761.8800	0.6465	0.216647
2028	Annual	Los Angeles (SC)	LDA	Dsl	N2O	0.0526	1628613.7736	0.0293	
2028	Annual	Los Angeles (SC)	LDA	Gas	N2O	0.9946	146491484.1051	0.0062	0.006414
2028	Annual	Los Angeles (SC)	LDT1	Dsl	N2O	0.0003	3717.6202	0.0650	
2028	Annual	Los Angeles (SC)	LDT1	Gas	N2O	0.1705	18569860.9744	0.0083	0.008340
2028	Annual	Los Angeles (SC)	LDT2	Dsl	N2O	0.0218	495817.5553	0.0398	
2028	Annual	Los Angeles (SC)	LDT2	Gas	N2O	0.4558	53762862.3362	0.0077	0.007985
2028	Annual	Los Angeles (SC)	LHDT1	Dsl	N2O	0.2556	3465344.1978	0.0669	
2028	Annual	Los Angeles (SC)	LHDT1	Gas	N2O	0.0896	3691681.4796	0.0220	0.043750
2028	Annual	Los Angeles (SC)	LHDT2	Dsl	N2O	0.1109	1352695.5490	0.0744	
2028	Annual	Los Angeles (SC)	LHDT2	Gas	N2O	0.0160	626221.8181	0.0232	0.058193
2028	Annual	Los Angeles (SC)	MHDT	Dsl	N2O	0.6925	4683919.8002	0.1341	
2028	Annual	Los Angeles (SC)	MHDT	Gas	N2O	0.0213	822297.8140	0.0235	0.117606
2028	Annual	Los Angeles (SC)	HHDT	Dsl	NOx	27.6343	7602762.1115	3.2974	
2028	Annual	Los Angeles (SC)	HHDT	Gas	NOx	0.0233	6900.3896	3.0637	
2028	Annual	Los Angeles (SC)	HHDT	NG	NOx	0.3295	145761.8800	2.0508	3.273763
2028	Annual	Los Angeles (SC)	LDA	Dsl	NOx	0.0461	1628613.7736	0.0257	
2028	Annual	Los Angeles (SC)	LDA	Gas	NOx	6.8181	146491484.1051	0.0422	0.042041
2028	Annual	Los Angeles (SC)	LDT1	Dsl	NOx	0.0021	3717.6202	0.5162	
2028	Annual	Los Angeles (SC)	LDT1	Gas	NOx	1.6653	18569860.9744	0.0814	0.081440
2028	Annual	Los Angeles (SC)	LDT2	Dsl	NOx	0.0205	495817.5553	0.0374	
2028	Annual	Los Angeles (SC)	LDT2	Gas	NOx	4.0970	53762862.3362	0.0691	0.068843
2028	Annual	Los Angeles (SC)	LHDT1	Dsl	NOx	1.9713	3465344.1978	0.5161	
2028	Annual	Los Angeles (SC)	LHDT1	Gas	NOx	1.1178	3691681.4796	0.2747	0.391550
2028	Annual	Los Angeles (SC)	LHDT2	Dsl	NOx	0.7908	1352695.5490	0.5304	
2028	Annual	Los Angeles (SC)	LHDT2	Gas	NOx	0.1980	626221.8181	0.2869	0.453332
2028	Annual	Los Angeles (SC)	MHDT	Dsl	NOx	8.6311	4683919.8002	1.6717	
2028	Annual	Los Angeles (SC)	MHDT	Gas	NOx	0.2807	822297.8140	0.3097	1.468270
2028	Annual	Los Angeles (SC)	HHDT	Dsl	PM10	0.9680	7602762.1115	0.1155	
2028	Annual	Los Angeles (SC)	HHDT	Gas	PM10	0.0006	6900.3896	0.0830	
2028	Annual	Los Angeles (SC)	HHDT	NG	PM10	0.0165	145761.8800	0.1028	0.115242
2028	Annual	Los Angeles (SC)	LDA	Dsl	PM10	0.0859	1628613.7736	0.0478	
2028	Annual	Los Angeles (SC)	LDA	Elec	PM10	0.3353	6797709.6158	0.0447	
2028	Annual	Los Angeles (SC)	LDA	Gas	PM10	7.4778	146491484.1051	0.0463	0.046256
2028	Annual	Los Angeles (SC)	LDT1	Dsl	PM10	0.0004	3717.6202	0.0993	
2028	Annual	Los Angeles (SC)	LDT1	Elec	PM10	0.0228	462505.0388	0.0447	
2028	Annual	Los Angeles (SC)	LDT1	Gas	PM10	0.9569	18569860.9744	0.0467	0.046707

EMFAC2017 On-Road Vehicle Emission Rate Calculations

calendar_year	season_month	sub_area	vehicle_class	fuel	pollutant	emission	vmt	g/mile	aggregate EF (g/mi)
2028	Annual	Los Angeles (SC)	LDT2	Dsl	PM10	0.0270	495817.5553	0.0495	
2028	Annual	Los Angeles (SC)	LDT2	Elec	PM10	0.0569	1152885.1585	0.0447	
2028	Annual	Los Angeles (SC)	LDT2	Gas	PM10	2.7507	53762862.3362	0.0464	0.046407
2028	Annual	Los Angeles (SC)	LHDT1	Dsl	PM10	0.3741	3465344.1978	0.0979	
2028	Annual	Los Angeles (SC)	LHDT1	Gas	PM10	0.3496	3691681.4796	0.0859	0.051738
2028	Annual	Los Angeles (SC)	LHDT2	Dsl	PM10	0.1715	1352695.5490	0.1150	
2028	Annual	Los Angeles (SC)	LHDT2	Gas	PM10	0.0680	626221.8181	0.0985	0.094237
2028	Annual	Los Angeles (SC)	MHDT	Dsl	PM10	0.7723	4683919.8002	0.1496	
2028	Annual	Los Angeles (SC)	MHDT	Gas	PM10	0.1302	822297.8140	0.1437	0.143574
2028	Annual	Los Angeles (SC)	HHDT	Dsl	PM2_5	0.4448	7602762.1115	0.0531	
2028	Annual	Los Angeles (SC)	HHDT	Gas	PM2_5	0.0002	6900.3896	0.0327	
2028	Annual	Los Angeles (SC)	HHDT	NG	PM2_5	0.0065	145761.8800	0.0403	0.052820
2028	Annual	Los Angeles (SC)	LDA	Dsl	PM2_5	0.0372	1628613.7736	0.0207	
2028	Annual	Los Angeles (SC)	LDA	Elec	PM2_5	0.1330	6797709.6158	0.0177	
2028	Annual	Los Angeles (SC)	LDA	Gas	PM2_5	3.0976	146491484.1051	0.0192	0.019136
2028	Annual	Los Angeles (SC)	LDT1	Dsl	PM2_5	0.0003	3717.6202	0.0700	
2028	Annual	Los Angeles (SC)	LDT1	Elec	PM2_5	0.0090	462505.0388	0.0177	
2028	Annual	Los Angeles (SC)	LDT1	Gas	PM2_5	0.4009	18569860.9744	0.0196	0.019549
2028	Annual	Los Angeles (SC)	LDT2	Dsl	PM2_5	0.0122	495817.5553	0.0223	
2028	Annual	Los Angeles (SC)	LDT2	Elec	PM2_5	0.0226	1152885.1585	0.0177	
2028	Annual	Los Angeles (SC)	LDT2	Gas	PM2_5	1.1426	53762862.3362	0.0193	0.019275
2028	Annual	Los Angeles (SC)	LHDT1	Dsl	PM2_5	0.1713	3465344.1978	0.0448	
2028	Annual	Los Angeles (SC)	LHDT1	Gas	PM2_5	0.1469	3691681.4796	0.0361	0.021754
2028	Annual	Los Angeles (SC)	LHDT2	Dsl	PM2_5	0.0812	1352695.5490	0.0544	
2028	Annual	Los Angeles (SC)	LHDT2	Gas	PM2_5	0.0286	626221.8181	0.0415	0.041070
2028	Annual	Los Angeles (SC)	MHDT	Dsl	PM2_5	0.3397	4683919.8002	0.0658	
2028	Annual	Los Angeles (SC)	MHDT	Gas	PM2_5	0.0545	822297.8140	0.0601	0.062538
2028	Annual	Los Angeles (SC)	HHDT	Dsl	ROG	0.4835	7602762.1115	0.0577	
2028	Annual	Los Angeles (SC)	HHDT	Gas	ROG	0.0031	6900.3896	0.4053	
2028	Annual	Los Angeles (SC)	HHDT	NG	ROG	0.0288	145761.8800	0.1795	0.060297
2028	Annual	Los Angeles (SC)	LDA	Dsl	ROG	0.0201	1628613.7736	0.0112	
2028	Annual	Los Angeles (SC)	LDA	Elec	ROG	0.0100	6797709.6158	0.0013	
2028	Annual	Los Angeles (SC)	LDA	Gas	ROG	11.2150	146491484.1051	0.0695	0.065850
2028	Annual	Los Angeles (SC)	LDT1	Dsl	ROG	0.0004	3717.6202	0.0947	
2028	Annual	Los Angeles (SC)	LDT1	Elec	ROG	0.0007	462505.0388	0.0013	
2028	Annual	Los Angeles (SC)	LDT1	Gas	ROG	2.9091	18569860.9744	0.1421	0.138687
2028	Annual	Los Angeles (SC)	LDT2	Dsl	ROG	0.0119	495817.5553	0.0218	

EMFAC2017 On-Road Vehicle Emission Rate Calculations

calendar_year	season_month	sub_area	vehicle_class	fuel	pollutant	emission	vmt	g/mile	aggregate EF (g/mi)
2028	Annual	Los Angeles (SC)	LDT2	Elec	ROG	0.0024	1152885.1585	0.0019	
2028	Annual	Los Angeles (SC)	LDT2	Gas	ROG	6.5823	53762862.3362	0.1111	0.107998
2028	Annual	Los Angeles (SC)	LHDT1	Dsl	ROG	0.2035	3465344.1978	0.0533	
2028	Annual	Los Angeles (SC)	LHDT1	Gas	ROG	1.6232	3691681.4796	0.3989	0.125223
2028	Annual	Los Angeles (SC)	LHDT2	Dsl	ROG	0.0805	1352695.5490	0.0540	
2028	Annual	Los Angeles (SC)	LHDT2	Gas	ROG	0.2235	626221.8181	0.3238	0.308325
2028	Annual	Los Angeles (SC)	MHDT	Dsl	ROG	0.0457	4683919.8002	0.0088	
2028	Annual	Los Angeles (SC)	MHDT	Gas	ROG	0.2345	822297.8140	0.2587	0.074508
2028	Annual	Los Angeles (SC)	HHDT	Dsl	SOx	0.1050	7602762.1115	0.0125	
2028	Annual	Los Angeles (SC)	HHDT	Gas	SOx	0.0001	6900.3896	0.0180	0.036541
2028	Annual	Los Angeles (SC)	LDA	Dsl	SOx	0.0032	1628613.7736	0.0018	
2028	Annual	Los Angeles (SC)	LDA	Gas	SOx	0.3892	146491484.1051	0.0024	0.002403
2028	Annual	Los Angeles (SC)	LDT1	Dsl	SOx	0.0000	3717.6202	0.0039	
2028	Annual	Los Angeles (SC)	LDT1	Gas	SOx	0.0579	18569860.9744	0.0028	0.002827
2028	Annual	Los Angeles (SC)	LDT2	Dsl	SOx	0.0013	495817.5553	0.0024	
2028	Annual	Los Angeles (SC)	LDT2	Gas	SOx	0.1714	53762862.3362	0.0029	0.002888
2028	Annual	Los Angeles (SC)	LHDT1	Dsl	SOx	0.0154	3465344.1978	0.0040	
2028	Annual	Los Angeles (SC)	LHDT1	Gas	SOx	0.0304	3691681.4796	0.0075	0.005808
2028	Annual	Los Angeles (SC)	LHDT2	Dsl	SOx	0.0067	1352695.5490	0.0045	
2028	Annual	Los Angeles (SC)	LHDT2	Gas	SOx	0.0059	626221.8181	0.0086	0.005782
2028	Annual	Los Angeles (SC)	MHDT	Dsl	SOx	0.0416	4683919.8002	0.0081	
2028	Annual	Los Angeles (SC)	MHDT	Gas	SOx	0.0138	822297.8140	0.0153	0.009139
2033	Annual	Los Angeles (SC)	HHDT	Dsl	CH4	0.0233	8139884.4474	0.0026	
2033	Annual	Los Angeles (SC)	HHDT	Gas	CH4	0.0006	7638.6406	0.0746	
2033	Annual	Los Angeles (SC)	HHDT	NG	CH4	0.8045	171673.1890	4.2512	0.090334
2033	Annual	Los Angeles (SC)	LDA	Dsl	CH4	0.0007	1734692.0749	0.0004	
2033	Annual	Los Angeles (SC)	LDA	Gas	CH4	0.7530	145368419.8802	0.0047	0.004648
2033	Annual	Los Angeles (SC)	LDT1	Dsl	CH4	0.0000	3012.0570	0.0017	
2033	Annual	Los Angeles (SC)	LDT1	Gas	CH4	0.1346	19369391.8594	0.0063	0.006304
2033	Annual	Los Angeles (SC)	LDT2	Dsl	CH4	0.0006	544244.0431	0.0010	
2033	Annual	Los Angeles (SC)	LDT2	Gas	CH4	0.4129	55051434.3756	0.0068	0.006747
2033	Annual	Los Angeles (SC)	LHDT1	Dsl	CH4	0.0096	3862319.2420	0.0023	
2033	Annual	Los Angeles (SC)	LHDT1	Gas	CH4	0.0419	3685925.9339	0.0103	0.006192
2033	Annual	Los Angeles (SC)	LHDT2	Dsl	CH4	0.0039	1508341.5176	0.0023	
2033	Annual	Los Angeles (SC)	LHDT2	Gas	CH4	0.0073	634799.7321	0.0105	0.004739
2033	Annual	Los Angeles (SC)	MHDT	Dsl	CH4	0.0022	4973128.9809	0.0004	
2033	Annual	Los Angeles (SC)	MHDT	Gas	CH4	0.0199	847102.4609	0.0213	0.003443

EMFAC2017 On-Road Vehicle Emission Rate Calculations

calendar_year	season_month	sub_area	vehicle_class	fuel	pollutant	emission	vmt	g/mile	aggregate EF (g/mi)
2033	Annual	Los Angeles (SC)	HHDT	Dsl	CO	6.8373	8139884.4474	0.7620	
2033	Annual	Los Angeles (SC)	HHDT	Gas	CO	0.2611	7638.6406	31.0107	
2033	Annual	Los Angeles (SC)	HHDT	NG	CO	2.8258	171673.1890	14.9325	1.082202
2033	Annual	Los Angeles (SC)	LDA	Dsl	CO	0.4425	1734692.0749	0.2314	
2033	Annual	Los Angeles (SC)	LDA	Gas	CO	110.7387	145368419.8802	0.6911	0.685654
2033	Annual	Los Angeles (SC)	LDT1	Dsl	CO	0.0012	3012.0570	0.3587	
2033	Annual	Los Angeles (SC)	LDT1	Gas	CO	17.7938	19369391.8594	0.8334	0.833316
2033	Annual	Los Angeles (SC)	LDT2	Dsl	CO	0.1333	544244.0431	0.2223	
2033	Annual	Los Angeles (SC)	LDT2	Gas	CO	54.2195	55051434.3756	0.8935	0.886904
2033	Annual	Los Angeles (SC)	LHDT1	Dsl	CO	1.0130	3862319.2420	0.2379	
2033	Annual	Los Angeles (SC)	LHDT1	Gas	CO	3.7906	3685925.9339	0.9330	0.577319
2033	Annual	Los Angeles (SC)	LHDT2	Dsl	CO	0.4093	1508341.5176	0.2462	
2033	Annual	Los Angeles (SC)	LHDT2	Gas	CO	0.6396	634799.7321	0.9140	0.444000
2033	Annual	Los Angeles (SC)	MHDT	Dsl	CO	0.6765	4973128.9809	0.1234	
2033	Annual	Los Angeles (SC)	MHDT	Gas	CO	1.6714	847102.4609	1.7900	0.365962
2033	Annual	Los Angeles (SC)	HHDT	Dsl	CO2	10718.2214	8139884.4474	1194.5377	
2033	Annual	Los Angeles (SC)	HHDT	Gas	CO2	14.1627	7638.6406	1681.9989	
2033	Annual	Los Angeles (SC)	HHDT	NG	CO2	557.0943	171673.1890	2943.8904	1231.084574
2033	Annual	Los Angeles (SC)	LDA	Dsl	CO2	333.9959	1734692.0749	174.6683	
2033	Annual	Los Angeles (SC)	LDA	Gas	CO2	35955.3121	145368419.8802	224.3822	223.795943
2033	Annual	Los Angeles (SC)	LDT1	Dsl	CO2	1.2259	3012.0570	369.2067	
2033	Annual	Los Angeles (SC)	LDT1	Gas	CO2	5643.3959	19369391.8594	264.3138	264.330155
2033	Annual	Los Angeles (SC)	LDT2	Dsl	CO2	141.2429	544244.0431	235.4336	
2033	Annual	Los Angeles (SC)	LDT2	Gas	CO2	16038.1399	55051434.3756	264.2900	264.007521
2033	Annual	Los Angeles (SC)	LHDT1	Dsl	CO2	1719.8199	3862319.2420	403.9524	
2033	Annual	Los Angeles (SC)	LHDT1	Gas	CO2	2895.0123	3685925.9339	712.5235	554.632482
2033	Annual	Los Angeles (SC)	LHDT2	Dsl	CO2	746.9263	1508341.5176	449.2348	
2033	Annual	Los Angeles (SC)	LHDT2	Gas	CO2	574.2577	634799.7321	820.6642	559.252452
2033	Annual	Los Angeles (SC)	MHDT	Dsl	CO2	4377.5644	4973128.9809	798.5428	
2033	Annual	Los Angeles (SC)	MHDT	Gas	CO2	1348.6224	847102.4609	1444.2747	892.525500
2033	Annual	Los Angeles (SC)	HHDT	Dsl	N2O	1.6848	8139884.4474	0.1878	
2033	Annual	Los Angeles (SC)	HHDT	Gas	N2O	0.0011	7638.6406	0.1307	
2033	Annual	Los Angeles (SC)	HHDT	NG	N2O	0.1136	171673.1890	0.6001	0.196222
2033	Annual	Los Angeles (SC)	LDA	Dsl	N2O	0.0525	1734692.0749	0.0275	
2033	Annual	Los Angeles (SC)	LDA	Gas	N2O	0.9190	145368419.8802	0.0057	0.005991
2033	Annual	Los Angeles (SC)	LDT1	Dsl	N2O	0.0002	3012.0570	0.0580	
2033	Annual	Los Angeles (SC)	LDT1	Gas	N2O	0.1449	19369391.8594	0.0068	0.006795

EMFAC2017 On-Road Vehicle Emission Rate Calculations

calendar_year	season_month	sub_area	vehicle_class	fuel	pollutant	emission	vmt	g/mile	aggregate EF (g/mi)
2033	Annual	Los Angeles (SC)	LDT2	Dsl	N2O	0.0222	544244.0431	0.0370	
2033	Annual	Los Angeles (SC)	LDT2	Gas	N2O	0.4020	55051434.3756	0.0066	0.006923
2033	Annual	Los Angeles (SC)	LHDT1	Dsl	N2O	0.2703	3862319.2420	0.0635	
2033	Annual	Los Angeles (SC)	LHDT1	Gas	N2O	0.0762	3685925.9339	0.0188	0.041647
2033	Annual	Los Angeles (SC)	LHDT2	Dsl	N2O	0.1174	1508341.5176	0.0706	
2033	Annual	Los Angeles (SC)	LHDT2	Gas	N2O	0.0139	634799.7321	0.0199	0.055579
2033	Annual	Los Angeles (SC)	MHDT	Dsl	N2O	0.6881	4973128.9809	0.1255	
2033	Annual	Los Angeles (SC)	MHDT	Gas	N2O	0.0200	847102.4609	0.0214	0.110367
2033	Annual	Los Angeles (SC)	HHDT	Dsl	NOx	28.1993	8139884.4474	3.1428	
2033	Annual	Los Angeles (SC)	HHDT	Gas	NOx	0.0252	7638.6406	2.9877	
2033	Annual	Los Angeles (SC)	HHDT	NG	NOx	0.2769	171673.1890	1.4633	3.107989
2033	Annual	Los Angeles (SC)	LDA	Dsl	NOx	0.0281	1734692.0749	0.0147	
2033	Annual	Los Angeles (SC)	LDA	Gas	NOx	5.8328	145368419.8802	0.0364	0.036144
2033	Annual	Los Angeles (SC)	LDT1	Dsl	NOx	0.0008	3012.0570	0.2369	
2033	Annual	Los Angeles (SC)	LDT1	Gas	NOx	1.0970	19369391.8594	0.0514	0.051406
2033	Annual	Los Angeles (SC)	LDT2	Dsl	NOx	0.0219	544244.0431	0.0366	
2033	Annual	Los Angeles (SC)	LDT2	Gas	NOx	3.1254	55051434.3756	0.0515	0.051357
2033	Annual	Los Angeles (SC)	LHDT1	Dsl	NOx	1.1369	3862319.2420	0.2670	
2033	Annual	Los Angeles (SC)	LHDT1	Gas	NOx	0.8444	3685925.9339	0.2078	0.238124
2033	Annual	Los Angeles (SC)	LHDT2	Dsl	NOx	0.5107	1508341.5176	0.3071	
2033	Annual	Los Angeles (SC)	LHDT2	Gas	NOx	0.1556	634799.7321	0.2224	0.282024
2033	Annual	Los Angeles (SC)	MHDT	Dsl	NOx	9.2765	4973128.9809	1.6922	
2033	Annual	Los Angeles (SC)	MHDT	Gas	NOx	0.2267	847102.4609	0.2427	1.481238
2033	Annual	Los Angeles (SC)	HHDT	Dsl	PM10	1.0281	8139884.4474	0.1146	
2033	Annual	Los Angeles (SC)	HHDT	Gas	PM10	0.0007	7638.6406	0.0830	
2033	Annual	Los Angeles (SC)	HHDT	NG	PM10	0.0193	171673.1890	0.1019	0.114292
2033	Annual	Los Angeles (SC)	LDA	Dsl	PM10	0.0885	1734692.0749	0.0463	
2033	Annual	Los Angeles (SC)	LDA	Elec	PM10	0.4158	8429344.4772	0.0447	
2033	Annual	Los Angeles (SC)	LDA	Gas	PM10	7.3575	145368419.8802	0.0459	0.045856
2033	Annual	Los Angeles (SC)	LDT1	Dsl	PM10	0.0002	3012.0570	0.0603	
2033	Annual	Los Angeles (SC)	LDT1	Elec	PM10	0.0313	634616.8868	0.0447	
2033	Annual	Los Angeles (SC)	LDT1	Gas	PM10	0.9849	19369391.8594	0.0461	0.046088
2033	Annual	Los Angeles (SC)	LDT2	Dsl	PM10	0.0297	544244.0431	0.0495	
2033	Annual	Los Angeles (SC)	LDT2	Elec	PM10	0.0752	1524213.6743	0.0447	
2033	Annual	Los Angeles (SC)	LDT2	Gas	PM10	2.7914	55051434.3756	0.0460	0.045999
2033	Annual	Los Angeles (SC)	LHDT1	Dsl	PM10	0.4100	3862319.2420	0.0963	
2033	Annual	Los Angeles (SC)	LHDT1	Gas	PM10	0.3489	3685925.9339	0.0859	0.051450

EMFAC2017 On-Road Vehicle Emission Rate Calculations

calendar_year	season_month	sub_area	vehicle_class	fuel	pollutant	emission	vmt	g/mile	aggregate EF (g/mi)
2033	Annual	Los Angeles (SC)	LHDT2	Dsl	PM10	0.1907	1508341.5176	0.1147	
2033	Annual	Los Angeles (SC)	LHDT2	Gas	PM10	0.0690	634799.7321	0.0985	0.094709
2033	Annual	Los Angeles (SC)	MHDT	Dsl	PM10	0.8196	4973128.9809	0.1495	
2033	Annual	Los Angeles (SC)	MHDT	Gas	PM10	0.1342	847102.4609	0.1437	0.143739
2033	Annual	Los Angeles (SC)	HHDT	Dsl	PM2_5	0.4681	8139884.4474	0.0522	
2033	Annual	Los Angeles (SC)	HHDT	Gas	PM2_5	0.0003	7638.6406	0.0327	
2033	Annual	Los Angeles (SC)	HHDT	NG	PM2_5	0.0075	171673.1890	0.0395	0.051892
2033	Annual	Los Angeles (SC)	LDA	Dsl	PM2_5	0.0367	1734692.0749	0.0192	
2033	Annual	Los Angeles (SC)	LDA	Elec	PM2_5	0.1649	8429344.4772	0.0177	
2033	Annual	Los Angeles (SC)	LDA	Gas	PM2_5	3.0160	145368419.8802	0.0188	0.018768
2033	Annual	Los Angeles (SC)	LDT1	Dsl	PM2_5	0.0001	3012.0570	0.0327	
2033	Annual	Los Angeles (SC)	LDT1	Elec	PM2_5	0.0124	634616.8868	0.0177	
2033	Annual	Los Angeles (SC)	LDT1	Gas	PM2_5	0.4061	19369391.8594	0.0190	0.018981
2033	Annual	Los Angeles (SC)	LDT2	Dsl	PM2_5	0.0134	544244.0431	0.0223	
2033	Annual	Los Angeles (SC)	LDT2	Elec	PM2_5	0.0298	1524213.6743	0.0177	
2033	Annual	Los Angeles (SC)	LDT2	Gas	PM2_5	1.1468	55051434.3756	0.0189	0.018900
2033	Annual	Los Angeles (SC)	LHDT1	Dsl	PM2_5	0.1843	3862319.2420	0.0433	
2033	Annual	Los Angeles (SC)	LHDT1	Gas	PM2_5	0.1465	3685925.9339	0.0361	0.021414
2033	Annual	Los Angeles (SC)	LHDT2	Dsl	PM2_5	0.0901	1508341.5176	0.0542	
2033	Annual	Los Angeles (SC)	LHDT2	Gas	PM2_5	0.0290	634799.7321	0.0415	0.041341
2033	Annual	Los Angeles (SC)	MHDT	Dsl	PM2_5	0.3603	4973128.9809	0.0657	
2033	Annual	Los Angeles (SC)	MHDT	Gas	PM2_5	0.0561	847102.4609	0.0601	0.062603
2033	Annual	Los Angeles (SC)	HHDT	Dsl	ROG	0.5010	8139884.4474	0.0558	
2033	Annual	Los Angeles (SC)	HHDT	Gas	ROG	0.0032	7638.6406	0.3759	
2033	Annual	Los Angeles (SC)	HHDT	NG	ROG	0.0228	171673.1890	0.1207	0.057467
2033	Annual	Los Angeles (SC)	LDA	Dsl	ROG	0.0157	1734692.0749	0.0082	
2033	Annual	Los Angeles (SC)	LDA	Elec	ROG	0.0134	8429344.4772	0.0014	
2033	Annual	Los Angeles (SC)	LDA	Gas	ROG	9.1638	145368419.8802	0.0572	0.053620
2033	Annual	Los Angeles (SC)	LDT1	Dsl	ROG	0.0001	3012.0570	0.0375	
2033	Annual	Los Angeles (SC)	LDT1	Elec	ROG	0.0010	634616.8868	0.0014	
2033	Annual	Los Angeles (SC)	LDT1	Gas	ROG	2.0447	19369391.8594	0.0958	0.092765
2033	Annual	Los Angeles (SC)	LDT2	Dsl	ROG	0.0132	544244.0431	0.0220	
2033	Annual	Los Angeles (SC)	LDT2	Elec	ROG	0.0035	1524213.6743	0.0021	
2033	Annual	Los Angeles (SC)	LDT2	Gas	ROG	5.4366	55051434.3756	0.0896	0.086610
2033	Annual	Los Angeles (SC)	LHDT1	Dsl	ROG	0.2074	3862319.2420	0.0487	
2033	Annual	Los Angeles (SC)	LHDT1	Gas	ROG	1.2220	3685925.9339	0.3008	0.099500
2033	Annual	Los Angeles (SC)	LHDT2	Dsl	ROG	0.0831	1508341.5176	0.0500	

EMFAC2017 On-Road Vehicle Emission Rate Calculations

calendar_year	season_month	sub_area	vehicle_class	fuel	pollutant	emission	vmt	g/mile	aggregate EF (g/mi)
2033	Annual	Los Angeles (SC)	LHDT2	Gas	ROG	0.1655	634799.7321	0.2365	0.228875
2033	Annual	Los Angeles (SC)	MHDT	Dsl	ROG	0.0478	4973128.9809	0.0087	
2033	Annual	Los Angeles (SC)	MHDT	Gas	ROG	0.2114	847102.4609	0.2264	0.059677
2033	Annual	Los Angeles (SC)	HHDT	Dsl	SOx	0.1013	8139884.4474	0.0113	
2033	Annual	Los Angeles (SC)	HHDT	Gas	SOx	0.0001	7638.6406	0.0166	0.031547
2033	Annual	Los Angeles (SC)	LDA	Dsl	SOx	0.0032	1734692.0749	0.0017	
2033	Annual	Los Angeles (SC)	LDA	Gas	SOx	0.3558	145368419.8802	0.0022	0.002214
2033	Annual	Los Angeles (SC)	LDT1	Dsl	SOx	0.0000	3012.0570	0.0035	
2033	Annual	Los Angeles (SC)	LDT1	Gas	SOx	0.0558	19369391.8594	0.0026	0.002616
2033	Annual	Los Angeles (SC)	LDT2	Dsl	SOx	0.0013	544244.0431	0.0022	
2033	Annual	Los Angeles (SC)	LDT2	Gas	SOx	0.1587	55051434.3756	0.0026	0.002612
2033	Annual	Los Angeles (SC)	LHDT1	Dsl	SOx	0.0163	3862319.2420	0.0038	
2033	Annual	Los Angeles (SC)	LHDT1	Gas	SOx	0.0286	3685925.9339	0.0071	0.005397
2033	Annual	Los Angeles (SC)	LHDT2	Dsl	SOx	0.0071	1508341.5176	0.0042	
2033	Annual	Los Angeles (SC)	LHDT2	Gas	SOx	0.0057	634799.7321	0.0081	0.005394
2033	Annual	Los Angeles (SC)	MHDT	Dsl	SOx	0.0414	4973128.9809	0.0075	
2033	Annual	Los Angeles (SC)	MHDT	Gas	SOx	0.0133	847102.4609	0.0143	0.008526
2038	Annual	Los Angeles (SC)	HHDT	Dsl	CH4	0.0245	8707332.6391	0.0026	
2038	Annual	Los Angeles (SC)	HHDT	Gas	CH4	0.0007	7982.4206	0.0760	
2038	Annual	Los Angeles (SC)	HHDT	NG	CH4	0.8731	190240.7560	4.1635	0.091507
2038	Annual	Los Angeles (SC)	LDA	Dsl	CH4	0.0006	1785778.9926	0.0003	
2038	Annual	Los Angeles (SC)	LDA	Gas	CH4	0.6202	145200708.4495	0.0039	0.003832
2038	Annual	Los Angeles (SC)	LDT1	Dsl	CH4	0.0000	2921.3872	0.0013	
2038	Annual	Los Angeles (SC)	LDT1	Gas	CH4	0.1026	19925767.6125	0.0047	0.004673
2038	Annual	Los Angeles (SC)	LDT2	Dsl	CH4	0.0006	566687.6514	0.0010	
2038	Annual	Los Angeles (SC)	LDT2	Gas	CH4	0.3378	55739058.9392	0.0055	0.005453
2038	Annual	Los Angeles (SC)	LHDT1	Dsl	CH4	0.0099	4138479.9757	0.0022	
2038	Annual	Los Angeles (SC)	LHDT1	Gas	CH4	0.0370	3716206.8371	0.0090	0.005420
2038	Annual	Los Angeles (SC)	LHDT2	Dsl	CH4	0.0040	1616892.7907	0.0022	
2038	Annual	Los Angeles (SC)	LHDT2	Gas	CH4	0.0065	647177.5510	0.0091	0.004204
2038	Annual	Los Angeles (SC)	MHDT	Dsl	CH4	0.0023	5241312.0472	0.0004	
2038	Annual	Los Angeles (SC)	MHDT	Gas	CH4	0.0202	864424.5407	0.0212	0.003346
2038	Annual	Los Angeles (SC)	HHDT	Dsl	CO	7.2298	8707332.6391	0.7532	
2038	Annual	Los Angeles (SC)	HHDT	Gas	CO	0.2774	7982.4206	31.5288	
2038	Annual	Los Angeles (SC)	HHDT	NG	CO	3.1549	190240.7560	15.0444	1.086114
2038	Annual	Los Angeles (SC)	LDA	Dsl	CO	0.4382	1785778.9926	0.2226	
2038	Annual	Los Angeles (SC)	LDA	Gas	CO	103.7672	145200708.4495	0.6483	0.643144

EMFAC2017 On-Road Vehicle Emission Rate Calculations

calendar_year	season_month	sub_area	vehicle_class	fuel	pollutant	emission	vmt	g/mile	aggregate EF (g/mi)
2038	Annual	Los Angeles (SC)	LDT1	Dsl	CO	0.0009	2921.3872	0.2839	
2038	Annual	Los Angeles (SC)	LDT1	Gas	CO	15.5466	19925767.6125	0.7078	0.707744
2038	Annual	Los Angeles (SC)	LDT2	Dsl	CO	0.1419	566687.6514	0.2272	
2038	Annual	Los Angeles (SC)	LDT2	Gas	CO	50.1599	55739058.9392	0.8164	0.810451
2038	Annual	Los Angeles (SC)	LHDT1	Dsl	CO	1.0533	4138479.9757	0.2309	
2038	Annual	Los Angeles (SC)	LHDT1	Gas	CO	3.6171	3716206.8371	0.8830	0.539408
2038	Annual	Los Angeles (SC)	LHDT2	Dsl	CO	0.4274	1616892.7907	0.2398	
2038	Annual	Los Angeles (SC)	LHDT2	Gas	CO	0.6403	647177.5510	0.8975	0.427825
2038	Annual	Los Angeles (SC)	MHDT	Dsl	CO	0.7157	5241312.0472	0.1239	
2038	Annual	Los Angeles (SC)	MHDT	Gas	CO	1.6113	864424.5407	1.6910	0.345751
2038	Annual	Los Angeles (SC)	HHDT	Dsl	CO2	10643.0692	8707332.6391	1108.8611	
2038	Annual	Los Angeles (SC)	HHDT	Gas	CO2	14.1265	7982.4206	1605.4502	
2038	Annual	Los Angeles (SC)	HHDT	NG	CO2	585.1572	190240.7560	2790.3864	1145.226968
2038	Annual	Los Angeles (SC)	LDA	Dsl	CO2	332.0494	1785778.9926	168.6826	
2038	Annual	Los Angeles (SC)	LDA	Gas	CO2	34337.5596	145200708.4495	214.5340	213.976911
2038	Annual	Los Angeles (SC)	LDT1	Dsl	CO2	1.1013	2921.3872	341.9784	
2038	Annual	Los Angeles (SC)	LDT1	Gas	CO2	5536.7049	19925767.6125	252.0761	252.089294
2038	Annual	Los Angeles (SC)	LDT2	Dsl	CO2	140.8195	566687.6514	225.4313	
2038	Annual	Los Angeles (SC)	LDT2	Gas	CO2	15311.7571	55739058.9392	249.2073	248.968020
2038	Annual	Los Angeles (SC)	LHDT1	Dsl	CO2	1787.1754	4138479.9757	391.7614	
2038	Annual	Los Angeles (SC)	LHDT1	Gas	CO2	2815.2002	3716206.8371	687.2342	531.555434
2038	Annual	Los Angeles (SC)	LHDT2	Dsl	CO2	776.2846	1616892.7907	435.5471	
2038	Annual	Los Angeles (SC)	LHDT2	Gas	CO2	564.3402	647177.5510	791.0663	537.171193
2038	Annual	Los Angeles (SC)	MHDT	Dsl	CO2	4423.6998	5241312.0472	765.6689	
2038	Annual	Los Angeles (SC)	MHDT	Gas	CO2	1323.4252	864424.5407	1388.8895	853.901853
2038	Annual	Los Angeles (SC)	HHDT	Dsl	N2O	1.6729	8707332.6391	0.1743	
2038	Annual	Los Angeles (SC)	HHDT	Gas	N2O	0.0012	7982.4206	0.1338	
2038	Annual	Los Angeles (SC)	HHDT	NG	N2O	0.1193	190240.7560	0.5688	0.182689
2038	Annual	Los Angeles (SC)	LDA	Dsl	N2O	0.0522	1785778.9926	0.0265	
2038	Annual	Los Angeles (SC)	LDA	Gas	N2O	0.9009	145200708.4495	0.0056	0.005883
2038	Annual	Los Angeles (SC)	LDT1	Dsl	N2O	0.0002	2921.3872	0.0538	
2038	Annual	Los Angeles (SC)	LDT1	Gas	N2O	0.1384	19925767.6125	0.0063	0.006308
2038	Annual	Los Angeles (SC)	LDT2	Dsl	N2O	0.0221	566687.6514	0.0354	
2038	Annual	Los Angeles (SC)	LDT2	Gas	N2O	0.3769	55739058.9392	0.0061	0.006430
2038	Annual	Los Angeles (SC)	LHDT1	Dsl	N2O	0.2809	4138479.9757	0.0616	
2038	Annual	Los Angeles (SC)	LHDT1	Gas	N2O	0.0707	3716206.8371	0.0173	0.040609
2038	Annual	Los Angeles (SC)	LHDT2	Dsl	N2O	0.1220	1616892.7907	0.0685	

EMFAC2017 On-Road Vehicle Emission Rate Calculations

calendar_year	season_month	sub_area	vehicle_class	fuel	pollutant	emission	vmt	g/mile	aggregate EF (g/mi)
2038	Annual	Los Angeles (SC)	LHDT2	Gas	N2O	0.0129	647177.5510	0.0181	0.054069
2038	Annual	Los Angeles (SC)	MHDT	Dsl	N2O	0.6953	5241312.0472	0.1204	
2038	Annual	Los Angeles (SC)	MHDT	Gas	N2O	0.0201	864424.5407	0.0211	0.106306
2038	Annual	Los Angeles (SC)	HHDT	Dsl	NOx	29.2672	8707332.6391	3.0492	
2038	Annual	Los Angeles (SC)	HHDT	Gas	NOx	0.0271	7982.4206	3.0847	
2038	Annual	Los Angeles (SC)	HHDT	NG	NOx	0.2575	190240.7560	1.2281	3.010363
2038	Annual	Los Angeles (SC)	LDA	Dsl	NOx	0.0228	1785778.9926	0.0116	
2038	Annual	Los Angeles (SC)	LDA	Gas	NOx	5.4941	145200708.4495	0.0343	0.034050
2038	Annual	Los Angeles (SC)	LDT1	Dsl	NOx	0.0004	2921.3872	0.1329	
2038	Annual	Los Angeles (SC)	LDT1	Gas	NOx	0.9168	19925767.6125	0.0417	0.041754
2038	Annual	Los Angeles (SC)	LDT2	Dsl	NOx	0.0228	566687.6514	0.0365	
2038	Annual	Los Angeles (SC)	LDT2	Gas	NOx	2.5704	55739058.9392	0.0418	0.041781
2038	Annual	Los Angeles (SC)	LHDT1	Dsl	NOx	0.6981	4138479.9757	0.1530	
2038	Annual	Los Angeles (SC)	LHDT1	Gas	NOx	0.7215	3716206.8371	0.1761	0.163960
2038	Annual	Los Angeles (SC)	LHDT2	Dsl	NOx	0.3538	1616892.7907	0.1985	
2038	Annual	Los Angeles (SC)	LHDT2	Gas	NOx	0.1336	647177.5510	0.1872	0.195290
2038	Annual	Los Angeles (SC)	MHDT	Dsl	NOx	9.7402	5241312.0472	1.6859	
2038	Annual	Los Angeles (SC)	MHDT	Gas	NOx	0.2158	864424.5407	0.2265	1.479250
2038	Annual	Los Angeles (SC)	HHDT	Dsl	PM10	1.0955	8707332.6391	0.1141	
2038	Annual	Los Angeles (SC)	HHDT	Gas	PM10	0.0007	7982.4206	0.0831	
2038	Annual	Los Angeles (SC)	HHDT	NG	PM10	0.0213	190240.7560	0.1016	0.113837
2038	Annual	Los Angeles (SC)	LDA	Dsl	PM10	0.0902	1785778.9926	0.0458	
2038	Annual	Los Angeles (SC)	LDA	Elec	PM10	0.4602	9330033.0600	0.0447	
2038	Annual	Los Angeles (SC)	LDA	Gas	PM10	7.3069	145200708.4495	0.0457	0.045600
2038	Annual	Los Angeles (SC)	LDT1	Dsl	PM10	0.0002	2921.3872	0.0530	
2038	Annual	Los Angeles (SC)	LDT1	Elec	PM10	0.0365	740741.0414	0.0447	
2038	Annual	Los Angeles (SC)	LDT1	Gas	PM10	1.0058	19925767.6125	0.0458	0.045755
2038	Annual	Los Angeles (SC)	LDT2	Dsl	PM10	0.0310	566687.6514	0.0496	
2038	Annual	Los Angeles (SC)	LDT2	Elec	PM10	0.0854	1731075.5461	0.0447	
2038	Annual	Los Angeles (SC)	LDT2	Gas	PM10	2.8081	55739058.9392	0.0457	0.045712
2038	Annual	Los Angeles (SC)	LHDT1	Dsl	PM10	0.4354	4138479.9757	0.0954	
2038	Annual	Los Angeles (SC)	LHDT1	Gas	PM10	0.3517	3716206.8371	0.0858	0.051286
2038	Annual	Los Angeles (SC)	LHDT2	Dsl	PM10	0.2044	1616892.7907	0.1147	
2038	Annual	Los Angeles (SC)	LHDT2	Gas	PM10	0.0703	647177.5510	0.0986	0.095024
2038	Annual	Los Angeles (SC)	MHDT	Dsl	PM10	0.8635	5241312.0472	0.1494	
2038	Annual	Los Angeles (SC)	MHDT	Gas	PM10	0.1370	864424.5407	0.1437	0.143844
2038	Annual	Los Angeles (SC)	HHDT	Dsl	PM2_5	0.4965	8707332.6391	0.0517	

EMFAC2017 On-Road Vehicle Emission Rate Calculations

calendar_year	season_month	sub_area	vehicle_class	fuel	pollutant	emission	vmt	g/mile	aggregate EF (g/mi)
2038	Annual	Los Angeles (SC)	HHDT	Gas	PM2_5	0.0003	7982.4206	0.0327	
2038	Annual	Los Angeles (SC)	HHDT	NG	PM2_5	0.0082	190240.7560	0.0392	0.051439
2038	Annual	Los Angeles (SC)	LDA	Dsl	PM2_5	0.0369	1785778.9926	0.0188	
2038	Annual	Los Angeles (SC)	LDA	Elec	PM2_5	0.1826	9330033.0600	0.0177	
2038	Annual	Los Angeles (SC)	LDA	Gas	PM2_5	2.9737	145200708.4495	0.0186	0.018532
2038	Annual	Los Angeles (SC)	LDT1	Dsl	PM2_5	0.0001	2921.3872	0.0257	
2038	Annual	Los Angeles (SC)	LDT1	Elec	PM2_5	0.0145	740741.0414	0.0177	
2038	Annual	Los Angeles (SC)	LDT1	Gas	PM2_5	0.4109	19925767.6125	0.0187	0.018674
2038	Annual	Los Angeles (SC)	LDT2	Dsl	PM2_5	0.0140	566687.6514	0.0223	
2038	Annual	Los Angeles (SC)	LDT2	Elec	PM2_5	0.0339	1731075.5461	0.0177	
2038	Annual	Los Angeles (SC)	LDT2	Gas	PM2_5	1.1444	55739058.9392	0.0186	0.018637
2038	Annual	Los Angeles (SC)	LHDT1	Dsl	PM2_5	0.1937	4138479.9757	0.0425	
2038	Annual	Los Angeles (SC)	LHDT1	Gas	PM2_5	0.1477	3716206.8371	0.0361	0.021195
2038	Annual	Los Angeles (SC)	LHDT2	Dsl	PM2_5	0.0965	1616892.7907	0.0541	
2038	Annual	Los Angeles (SC)	LHDT2	Gas	PM2_5	0.0296	647177.5510	0.0415	0.041536
2038	Annual	Los Angeles (SC)	MHDT	Dsl	PM2_5	0.3794	5241312.0472	0.0657	
2038	Annual	Los Angeles (SC)	MHDT	Gas	PM2_5	0.0573	864424.5407	0.0602	0.062641
2038	Annual	Los Angeles (SC)	HHDT	Dsl	ROG	0.5277	8707332.6391	0.0550	
2038	Annual	Los Angeles (SC)	HHDT	Gas	ROG	0.0034	7982.4206	0.3875	
2038	Annual	Los Angeles (SC)	HHDT	NG	ROG	0.0204	190240.7560	0.0972	0.056176
2038	Annual	Los Angeles (SC)	LDA	Dsl	ROG	0.0140	1785778.9926	0.0071	
2038	Annual	Los Angeles (SC)	LDA	Elec	ROG	0.0158	9330033.0600	0.0015	
2038	Annual	Los Angeles (SC)	LDA	Gas	ROG	7.7543	145200708.4495	0.0484	0.045175
2038	Annual	Los Angeles (SC)	LDT1	Dsl	ROG	0.0001	2921.3872	0.0270	
2038	Annual	Los Angeles (SC)	LDT1	Elec	ROG	0.0013	740741.0414	0.0016	
2038	Annual	Los Angeles (SC)	LDT1	Gas	ROG	1.5750	19925767.6125	0.0717	0.069187
2038	Annual	Los Angeles (SC)	LDT2	Dsl	ROG	0.0138	566687.6514	0.0222	
2038	Annual	Los Angeles (SC)	LDT2	Elec	ROG	0.0043	1731075.5461	0.0022	
2038	Annual	Los Angeles (SC)	LDT2	Gas	ROG	4.3950	55739058.9392	0.0715	0.068982
2038	Annual	Los Angeles (SC)	LHDT1	Dsl	ROG	0.2137	4138479.9757	0.0469	
2038	Annual	Los Angeles (SC)	LHDT1	Gas	ROG	0.8281	3716206.8371	0.2021	0.077558
2038	Annual	Los Angeles (SC)	LHDT2	Dsl	ROG	0.0859	1616892.7907	0.0482	
2038	Annual	Los Angeles (SC)	LHDT2	Gas	ROG	0.1404	647177.5510	0.1968	0.159937
2038	Annual	Los Angeles (SC)	MHDT	Dsl	ROG	0.0498	5241312.0472	0.0086	
2038	Annual	Los Angeles (SC)	MHDT	Gas	ROG	0.2074	864424.5407	0.2176	0.053409
2038	Annual	Los Angeles (SC)	HHDT	Dsl	SOx	0.1006	8707332.6391	0.0105	
2038	Annual	Los Angeles (SC)	HHDT	Gas	SOx	0.0001	7982.4206	0.0159	0.029173

EMFAC2017 On-Road Vehicle Emission Rate Calculations

calendar_year	season_month	sub_area	vehicle_class	fuel	pollutant	emission	vmt	g/mile	aggregate EF (g/mi)
2038	Annual	Los Angeles (SC)	LDA	Dsl	SOx	0.0031	1785778.9926	0.0016	
2038	Annual	Los Angeles (SC)	LDA	Gas	SOx	0.3398	145200708.4495	0.0021	0.002117
2038	Annual	Los Angeles (SC)	LDT1	Dsl	SOx	0.0000	2921.3872	0.0032	
2038	Annual	Los Angeles (SC)	LDT1	Gas	SOx	0.0548	19925767.6125	0.0025	0.002495
2038	Annual	Los Angeles (SC)	LDT2	Dsl	SOx	0.0013	566687.6514	0.0021	
2038	Annual	Los Angeles (SC)	LDT2	Gas	SOx	0.1515	55739058.9392	0.0025	0.002463
2038	Annual	Los Angeles (SC)	LHDT1	Dsl	SOx	0.0169	4138479.9757	0.0037	
2038	Annual	Los Angeles (SC)	LHDT1	Gas	SOx	0.0279	3716206.8371	0.0068	0.005169
2038	Annual	Los Angeles (SC)	LHDT2	Dsl	SOx	0.0073	1616892.7907	0.0041	
2038	Annual	Los Angeles (SC)	LHDT2	Gas	SOx	0.0056	647177.5510	0.0078	0.005178
2038	Annual	Los Angeles (SC)	MHDT	Dsl	SOx	0.0418	5241312.0472	0.0072	
2038	Annual	Los Angeles (SC)	MHDT	Gas	SOx	0.0131	864424.5407	0.0137	0.008155
2043	Annual	Los Angeles (SC)	HHDT	Dsl	CH4	0.0262	9303767.1296	0.0026	
2043	Annual	Los Angeles (SC)	HHDT	Gas	CH4	0.0007	8121.8675	0.0765	
2043	Annual	Los Angeles (SC)	HHDT	NG	CH4	0.9231	204164.8454	4.1017	0.090567
2043	Annual	Los Angeles (SC)	LDA	Dsl	CH4	0.0006	1807803.2434	0.0003	
2043	Annual	Los Angeles (SC)	LDA	Gas	CH4	0.5577	145530461.3969	0.0035	0.003437
2043	Annual	Los Angeles (SC)	LDT1	Dsl	CH4	0.0000	2894.3023	0.0011	
2043	Annual	Los Angeles (SC)	LDT1	Gas	CH4	0.0863	20276874.9669	0.0039	0.003861
2043	Annual	Los Angeles (SC)	LDT2	Dsl	CH4	0.0007	578191.1561	0.0010	
2043	Annual	Los Angeles (SC)	LDT2	Gas	CH4	0.2940	56145990.6440	0.0048	0.004713
2043	Annual	Los Angeles (SC)	LHDT1	Dsl	CH4	0.0102	4304016.1137	0.0021	
2043	Annual	Los Angeles (SC)	LHDT1	Gas	CH4	0.0348	3745175.4234	0.0084	0.005069
2043	Annual	Los Angeles (SC)	LHDT2	Dsl	CH4	0.0041	1684330.2971	0.0022	
2043	Annual	Los Angeles (SC)	LHDT2	Gas	CH4	0.0061	657887.0092	0.0085	0.003964
2043	Annual	Los Angeles (SC)	MHDT	Dsl	CH4	0.0024	5510451.0780	0.0004	
2043	Annual	Los Angeles (SC)	MHDT	Gas	CH4	0.0207	874226.8199	0.0214	0.003280
2043	Annual	Los Angeles (SC)	HHDT	Dsl	CO	7.7540	9303767.1296	0.7561	
2043	Annual	Los Angeles (SC)	HHDT	Gas	CO	0.2853	8121.8675	31.8636	
2043	Annual	Los Angeles (SC)	HHDT	NG	CO	3.4006	204164.8454	15.1104	1.090591
2043	Annual	Los Angeles (SC)	LDA	Dsl	CO	0.4364	1807803.2434	0.2190	
2043	Annual	Los Angeles (SC)	LDA	Gas	CO	100.8470	145530461.3969	0.6286	0.623618
2043	Annual	Los Angeles (SC)	LDT1	Dsl	CO	0.0008	2894.3023	0.2572	
2043	Annual	Los Angeles (SC)	LDT1	Gas	CO	14.6166	20276874.9669	0.6539	0.653887
2043	Annual	Los Angeles (SC)	LDT2	Dsl	CO	0.1463	578191.1561	0.2296	
2043	Annual	Los Angeles (SC)	LDT2	Gas	CO	47.6674	56145990.6440	0.7702	0.764680
2043	Annual	Los Angeles (SC)	LHDT1	Dsl	CO	1.0871	4304016.1137	0.2291	

EMFAC2017 On-Road Vehicle Emission Rate Calculations

calendar_year	season_month	sub_area	vehicle_class	fuel	pollutant	emission	vmt	g/mile	aggregate EF (g/mi)
2043	Annual	Los Angeles (SC)	LHDT1	Gas	CO	3.6212	3745175.4234	0.8772	0.530648
2043	Annual	Los Angeles (SC)	LHDT2	Dsl	CO	0.4438	1684330.2971	0.2390	
2043	Annual	Los Angeles (SC)	LHDT2	Gas	CO	0.6555	657887.0092	0.9039	0.425801
2043	Annual	Los Angeles (SC)	MHDT	Dsl	CO	0.7534	5510451.0780	0.1240	
2043	Annual	Los Angeles (SC)	MHDT	Gas	CO	1.6140	874226.8199	1.6749	0.336390
2043	Annual	Los Angeles (SC)	HHDT	Dsl	CO2	10950.9151	9303767.1296	1067.7927	
2043	Annual	Los Angeles (SC)	HHDT	Gas	CO2	14.0900	8121.8675	1573.8061	
2043	Annual	Los Angeles (SC)	HHDT	NG	CO2	607.7946	204164.8454	2700.6682	1103.257597
2043	Annual	Los Angeles (SC)	LDA	Dsl	CO2	331.2065	1807803.2434	166.2046	
2043	Annual	Los Angeles (SC)	LDA	Gas	CO2	33787.9254	145530461.3969	210.6216	210.076660
2043	Annual	Los Angeles (SC)	LDT1	Dsl	CO2	1.0381	2894.3023	325.3874	
2043	Annual	Los Angeles (SC)	LDT1	Gas	CO2	5485.9491	20276874.9669	245.4404	245.451859
2043	Annual	Los Angeles (SC)	LDT2	Dsl	CO2	141.0186	578191.1561	221.2587	
2043	Annual	Los Angeles (SC)	LDT2	Gas	CO2	15003.1369	56145990.6440	242.4146	242.198921
2043	Annual	Los Angeles (SC)	LHDT1	Dsl	CO2	1823.9419	4304016.1137	384.4435	
2043	Annual	Los Angeles (SC)	LHDT1	Gas	CO2	2779.6902	3745175.4234	673.3171	518.852283
2043	Annual	Los Angeles (SC)	LHDT2	Dsl	CO2	793.8311	1684330.2971	427.5592	
2043	Annual	Los Angeles (SC)	LHDT2	Gas	CO2	560.9971	657887.0092	773.5791	524.749972
2043	Annual	Los Angeles (SC)	MHDT	Dsl	CO2	4527.4264	5510451.0780	745.3489	
2043	Annual	Los Angeles (SC)	MHDT	Gas	CO2	1312.7452	874226.8199	1362.2340	829.816375
2043	Annual	Los Angeles (SC)	HHDT	Dsl	N2O	1.7213	9303767.1296	0.1678	
2043	Annual	Los Angeles (SC)	HHDT	Gas	N2O	0.0012	8121.8675	0.1335	
2043	Annual	Los Angeles (SC)	HHDT	NG	N2O	0.1239	204164.8454	0.5505	0.176024
2043	Annual	Los Angeles (SC)	LDA	Dsl	N2O	0.0521	1807803.2434	0.0261	
2043	Annual	Los Angeles (SC)	LDA	Gas	N2O	0.9065	145530461.3969	0.0057	0.005902
2043	Annual	Los Angeles (SC)	LDT1	Dsl	N2O	0.0002	2894.3023	0.0511	
2043	Annual	Los Angeles (SC)	LDT1	Gas	N2O	0.1381	20276874.9669	0.0062	0.006184
2043	Annual	Los Angeles (SC)	LDT2	Dsl	N2O	0.0222	578191.1561	0.0348	
2043	Annual	Los Angeles (SC)	LDT2	Gas	N2O	0.3662	56145990.6440	0.0059	0.006211
2043	Annual	Los Angeles (SC)	LHDT1	Dsl	N2O	0.2867	4304016.1137	0.0604	
2043	Annual	Los Angeles (SC)	LHDT1	Gas	N2O	0.0786	3745175.4234	0.0190	0.041173
2043	Annual	Los Angeles (SC)	LHDT2	Dsl	N2O	0.1248	1684330.2971	0.0672	
2043	Annual	Los Angeles (SC)	LHDT2	Gas	N2O	0.0143	657887.0092	0.0198	0.053884
2043	Annual	Los Angeles (SC)	MHDT	Dsl	N2O	0.7116	5510451.0780	0.1172	
2043	Annual	Los Angeles (SC)	MHDT	Gas	N2O	0.0204	874226.8199	0.0211	0.104010
2043	Annual	Los Angeles (SC)	HHDT	Dsl	NOx	31.0582	9303767.1296	3.0284	
2043	Annual	Los Angeles (SC)	HHDT	Gas	NOx	0.0280	8121.8675	3.1300	

EMFAC2017 On-Road Vehicle Emission Rate Calculations

calendar_year	season_month	sub_area	vehicle_class	fuel	pollutant	emission	vmt	g/mile	aggregate EF (g/mi)
2043	Annual	Los Angeles (SC)	HHDT	NG	NOx	0.2416	204164.8454	1.0736	2.986545
2043	Annual	Los Angeles (SC)	LDA	Dsl	NOx	0.0206	1807803.2434	0.0103	
2043	Annual	Los Angeles (SC)	LDA	Gas	NOx	5.4452	145530461.3969	0.0339	0.033654
2043	Annual	Los Angeles (SC)	LDT1	Dsl	NOx	0.0002	2894.3023	0.0731	
2043	Annual	Los Angeles (SC)	LDT1	Gas	NOx	0.8634	20276874.9669	0.0386	0.038634
2043	Annual	Los Angeles (SC)	LDT2	Dsl	NOx	0.0232	578191.1561	0.0364	
2043	Annual	Los Angeles (SC)	LDT2	Gas	NOx	2.2684	56145990.6440	0.0367	0.036650
2043	Annual	Los Angeles (SC)	LHDT1	Dsl	NOx	0.4744	4304016.1137	0.1000	
2043	Annual	Los Angeles (SC)	LHDT1	Gas	NOx	0.8133	3745175.4234	0.1970	0.145129
2043	Annual	Los Angeles (SC)	LHDT2	Dsl	NOx	0.2717	1684330.2971	0.1463	
2043	Annual	Los Angeles (SC)	LHDT2	Gas	NOx	0.1494	657887.0092	0.2060	0.163102
2043	Annual	Los Angeles (SC)	MHDT	Dsl	NOx	10.2140	5510451.0780	1.6815	
2043	Annual	Los Angeles (SC)	MHDT	Gas	NOx	0.2167	874226.8199	0.2249	1.482078
2043	Annual	Los Angeles (SC)	HHDT	Dsl	PM10	1.1702	9303767.1296	0.1141	
2043	Annual	Los Angeles (SC)	HHDT	Gas	PM10	0.0007	8121.8675	0.0831	
2043	Annual	Los Angeles (SC)	HHDT	NG	PM10	0.0228	204164.8454	0.1013	0.113802
2043	Annual	Los Angeles (SC)	LDA	Dsl	PM10	0.0909	1807803.2434	0.0456	
2043	Annual	Los Angeles (SC)	LDA	Elec	PM10	0.4803	9737694.3049	0.0447	
2043	Annual	Los Angeles (SC)	LDA	Gas	PM10	7.3028	145530461.3969	0.0455	0.045476
2043	Annual	Los Angeles (SC)	LDT1	Dsl	PM10	0.0002	2894.3023	0.0510	
2043	Annual	Los Angeles (SC)	LDT1	Elec	PM10	0.0394	798994.1037	0.0447	
2043	Annual	Los Angeles (SC)	LDT1	Gas	PM10	1.0197	20276874.9669	0.0456	0.045588
2043	Annual	Los Angeles (SC)	LDT2	Dsl	PM10	0.0316	578191.1561	0.0496	
2043	Annual	Los Angeles (SC)	LDT2	Elec	PM10	0.0899	1822523.2434	0.0447	
2043	Annual	Los Angeles (SC)	LDT2	Gas	PM10	2.8195	56145990.6440	0.0456	0.045571
2043	Annual	Los Angeles (SC)	LHDT1	Dsl	PM10	0.4503	4304016.1137	0.0949	
2043	Annual	Los Angeles (SC)	LHDT1	Gas	PM10	0.3545	3745175.4234	0.0859	0.051217
2043	Annual	Los Angeles (SC)	LHDT2	Dsl	PM10	0.2133	1684330.2971	0.1149	
2043	Annual	Los Angeles (SC)	LHDT2	Gas	PM10	0.0715	657887.0092	0.0986	0.095270
2043	Annual	Los Angeles (SC)	MHDT	Dsl	PM10	0.9075	5510451.0780	0.1494	
2043	Annual	Los Angeles (SC)	MHDT	Gas	PM10	0.1385	874226.8199	0.1438	0.143952
2043	Annual	Los Angeles (SC)	HHDT	Dsl	PM2_5	0.5301	9303767.1296	0.0517	
2043	Annual	Los Angeles (SC)	HHDT	Gas	PM2_5	0.0003	8121.8675	0.0327	
2043	Annual	Los Angeles (SC)	HHDT	NG	PM2_5	0.0087	204164.8454	0.0389	0.051394
2043	Annual	Los Angeles (SC)	LDA	Dsl	PM2_5	0.0370	1807803.2434	0.0186	
2043	Annual	Los Angeles (SC)	LDA	Elec	PM2_5	0.1905	9737694.3049	0.0177	
2043	Annual	Los Angeles (SC)	LDA	Gas	PM2_5	2.9615	145530461.3969	0.0185	0.018418

EMFAC2017 On-Road Vehicle Emission Rate Calculations

calendar_year	season_month	sub_area	vehicle_class	fuel	pollutant	emission	vmt	g/mile	aggregate EF (g/mi)
2043	Annual	Los Angeles (SC)	LDT1	Dsl	PM2_5	0.0001	2894.3023	0.0237	
2043	Annual	Los Angeles (SC)	LDT1	Elec	PM2_5	0.0156	798994.1037	0.0177	
2043	Annual	Los Angeles (SC)	LDT1	Gas	PM2_5	0.4146	20276874.9669	0.0186	0.018520
2043	Annual	Los Angeles (SC)	LDT2	Dsl	PM2_5	0.0143	578191.1561	0.0224	
2043	Annual	Los Angeles (SC)	LDT2	Elec	PM2_5	0.0357	1822523.2434	0.0177	
2043	Annual	Los Angeles (SC)	LDT2	Gas	PM2_5	1.1444	56145990.6440	0.0185	0.018507
2043	Annual	Los Angeles (SC)	LHDT1	Dsl	PM2_5	0.1991	4304016.1137	0.0420	
2043	Annual	Los Angeles (SC)	LHDT1	Gas	PM2_5	0.1489	3745175.4234	0.0361	0.021090
2043	Annual	Los Angeles (SC)	LHDT2	Dsl	PM2_5	0.1009	1684330.2971	0.0543	
2043	Annual	Los Angeles (SC)	LHDT2	Gas	PM2_5	0.0301	657887.0092	0.0415	0.041712
2043	Annual	Los Angeles (SC)	MHDT	Dsl	PM2_5	0.3985	5510451.0780	0.0656	
2043	Annual	Los Angeles (SC)	MHDT	Gas	PM2_5	0.0580	874226.8199	0.0602	0.062686
2043	Annual	Los Angeles (SC)	HHDT	Dsl	ROG	0.5647	9303767.1296	0.0551	
2043	Annual	Los Angeles (SC)	HHDT	Gas	ROG	0.0035	8121.8675	0.3952	
2043	Annual	Los Angeles (SC)	HHDT	NG	ROG	0.0185	204164.8454	0.0821	0.055928
2043	Annual	Los Angeles (SC)	LDA	Dsl	ROG	0.0133	1807803.2434	0.0067	
2043	Annual	Los Angeles (SC)	LDA	Elec	ROG	0.0173	9737694.3049	0.0016	
2043	Annual	Los Angeles (SC)	LDA	Gas	ROG	7.0328	145530461.3969	0.0438	0.040794
2043	Annual	Los Angeles (SC)	LDT1	Dsl	ROG	0.0001	2894.3023	0.0242	
2043	Annual	Los Angeles (SC)	LDT1	Elec	ROG	0.0015	798994.1037	0.0017	
2043	Annual	Los Angeles (SC)	LDT1	Gas	ROG	1.3139	20276874.9669	0.0588	0.056615
2043	Annual	Los Angeles (SC)	LDT2	Dsl	ROG	0.0142	578191.1561	0.0222	
2043	Annual	Los Angeles (SC)	LDT2	Elec	ROG	0.0047	1822523.2434	0.0024	
2043	Annual	Los Angeles (SC)	LDT2	Gas	ROG	3.7420	56145990.6440	0.0605	0.058275
2043	Annual	Los Angeles (SC)	LHDT1	Dsl	ROG	0.2190	4304016.1137	0.0462	
2043	Annual	Los Angeles (SC)	LHDT1	Gas	ROG	0.7472	3745175.4234	0.1810	0.066533
2043	Annual	Los Angeles (SC)	LHDT2	Dsl	ROG	0.0881	1684330.2971	0.0475	
2043	Annual	Los Angeles (SC)	LHDT2	Gas	ROG	0.1353	657887.0092	0.1865	0.144638
2043	Annual	Los Angeles (SC)	MHDT	Dsl	ROG	0.0520	5510451.0780	0.0086	
2043	Annual	Los Angeles (SC)	MHDT	Gas	ROG	0.2122	874226.8199	0.2201	0.051455
2043	Annual	Los Angeles (SC)	HHDT	Dsl	SOx	0.1035	9303767.1296	0.0101	
2043	Annual	Los Angeles (SC)	HHDT	Gas	SOx	0.0001	8121.8675	0.0156	0.028121
2043	Annual	Los Angeles (SC)	LDA	Dsl	SOx	0.0031	1807803.2434	0.0016	
2043	Annual	Los Angeles (SC)	LDA	Gas	SOx	0.3344	145530461.3969	0.0021	0.002078
2043	Annual	Los Angeles (SC)	LDT1	Dsl	SOx	0.0000	2894.3023	0.0031	
2043	Annual	Los Angeles (SC)	LDT1	Gas	SOx	0.0543	20276874.9669	0.0024	0.002429
2043	Annual	Los Angeles (SC)	LDT2	Dsl	SOx	0.0013	578191.1561	0.0021	

EMFAC2017 On-Road Vehicle Emission Rate Calculations

calendar_year	season_month	sub_area	vehicle_class	fuel	pollutant	emission	vmt	g/mile	aggregate EF (g/mi)
2043	Annual	Los Angeles (SC)	LDT2	Gas	SOx	0.1485	56145990.6440	0.0024	0.002396
2043	Annual	Los Angeles (SC)	LHDT1	Dsl	SOx	0.0172	4304016.1137	0.0036	
2043	Annual	Los Angeles (SC)	LHDT1	Gas	SOx	0.0275	3745175.4234	0.0067	0.005044
2043	Annual	Los Angeles (SC)	LHDT2	Dsl	SOx	0.0075	1684330.2971	0.0040	
2043	Annual	Los Angeles (SC)	LHDT2	Gas	SOx	0.0056	657887.0092	0.0077	0.005057
2043	Annual	Los Angeles (SC)	MHDT	Dsl	SOx	0.0428	5510451.0780	0.0070	
2043	Annual	Los Angeles (SC)	MHDT	Gas	SOx	0.0130	874226.8199	0.0135	0.007923