
Appendix C

Air Quality and Greenhouse Gas Emissions

Appendix C

Air Quality and Greenhouse Gas Emissions

DRAFT

LVRAS Segment 1 Annual Emissions by Phase (tons/year) - with APMs

	ROG	NO _x	CO	SO ₂	Fugitive PM ₁₀	Exhaust PM ₁₀	PM ₁₀ Total	Fugitive PM _{2.5}	Exhaust PM _{2.5}	PM _{2.5} Total	CO ₂ e (MT)
Install Conduit Trench	0.004	0.036	0.141	0.000	0.053	0.000	0.053	0.006	0.000	0.006	27.114
On-site	0.004	0.034	0.136	0.000	0.000	0.000	0.000	0.000	0.000	0.000	24.940
Off-site	0.001	0.002	0.006	0.000	0.053	0.000	0.053	0.006	0.000	0.006	2.174
Install Underground Fiber Cable	0.001	0.005	0.037	0.000	0.012	0.000	0.012	0.001	0.000	0.001	7.554
On-site	0.001	0.004	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	6.914
Off-site	0.000	0.001	0.002	0.000	0.012	0.000	0.012	0.001	0.000	0.001	0.641
Install Overhead Fiber Cable	0.009	0.035	0.277	0.001	0.080	0.001	0.081	0.009	0.001	0.010	56.404
On-site	0.007	0.031	0.264	0.001	0.000	0.001	0.001	0.000	0.001	0.001	51.852
Off-site	0.001	0.003	0.013	0.000	0.080	0.000	0.080	0.009	0.000	0.009	4.552
Wooden Pole Installation	0.006	0.045	0.168	0.000	0.021	0.001	0.022	0.002	0.000	0.003	33.917
On-site	0.006	0.044	0.165	0.000	0.000	0.001	0.001	0.000	0.000	0.001	32.713
Off-site	0.000	0.001	0.004	0.000	0.021	0.000	0.021	0.002	0.000	0.002	1.204
Manhole Installation	0.003	0.026	0.102	0.000	0.038	0.000	0.039	0.004	0.000	0.004	19.533
On-site	0.003	0.025	0.098	0.000	0.000	0.000	0.000	0.000	0.000	0.000	17.957
Off-site	0.000	0.002	0.004	0.000	0.038	0.000	0.038	0.004	0.000	0.004	1.577
Fiber Cable Splicing	0.002	0.013	0.038	0.000	0.019	0.000	0.020	0.002	0.000	0.002	8.881
On-site	0.002	0.013	0.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000	8.092
Off-site	0.000	0.001	0.002	0.000	0.019	0.000	0.019	0.002	0.000	0.002	0.788
Remove/Install New Poles	0.008	0.044	0.190	0.000	0.042	0.001	0.043	0.005	0.001	0.006	41.617
On-site	0.008	0.042	0.184	0.000	0.000	0.001	0.001	0.000	0.001	0.001	39.540
Off-site	0.001	0.002	0.006	0.000	0.042	0.000	0.042	0.005	0.000	0.005	2.077
Total CO₂e Emissions (tons)										214.97	

LVRAS Segment 2 Annual Emissions (tons/year) - with APMs

	ROG	NO _x	CO	SO ₂	Fugitive PM ₁₀	Exhaust PM ₁₀	PM ₁₀ Total	Fugitive PM _{2.5}	Exhaust PM _{2.5}	PM _{2.5} Total	CO ₂ e (MT)
Staging/Material Yard	0.006	0.056	0.373	0.001	1.294	0.001	1.296	0.131	0.001	0.132	66.649
On-site	0.006	0.024	0.343	0.000	0.000	0.001	0.001	0.000	0.001	0.001	39.937
Off-site	0.000	0.032	0.030	0.000	1.294	0.000	1.295	0.131	0.000	0.132	26.713
ROW Clearing	0.009	0.045	0.404	0.001	0.447	0.001	0.448	0.045	0.001	0.047	66.236
On-site	0.008	0.034	0.392	0.001	0.015	0.001	0.016	0.002	0.001	0.003	56.842
Off-site	0.001	0.011	0.012	0.000	0.432	0.000	0.432	0.044	0.000	0.044	9.393
Install Conduit Trench	0.003	0.027	0.086	0.000	0.231	0.001	0.231	0.023	0.000	0.024	19.684
On-site	0.002	0.021	0.082	0.000	0.000	0.000	0.000	0.000	0.000	0.000	14.964
Off-site	0.000	0.007	0.005	0.000	0.231	0.001	0.231	0.023	0.000	0.023	4.720
LST Modifications	0.005	0.029	0.159	0.000	0.485	0.001	0.486	0.049	0.001	0.050	39.054
On-site	0.004	0.018	0.148	0.000	0.000	0.001	0.001	0.000	0.001	0.001	29.037
Off-site	0.001	0.012	0.011	0.000	0.485	0.000	0.486	0.049	0.000	0.049	10.017
Guard Structure Install/Removal	0.002	0.009	0.056	0.000	0.116	0.000	0.116	0.012	0.000	0.001	12.756
On-site	0.001	0.006	0.053	0.000	0.000	0.000	0.000	0.000	0.000	0.000	10.370
Off-site	0.000	0.003	0.003	0.000	0.116	0.000	0.116	0.012	0.000	0.001	2.385
Remove Existing OHGW and Install OPGW	1.880	17.010	14.823	1.245	6.996	0.009	9.025	0.706	0.009	2.725	473.856
On-site	0.047	0.202	1.709	0.004	0.000	0.006	0.006	0.000	0.006	0.006	337.012
Off-site	0.014	0.178	0.124	0.001	6.996	0.002	6.999	0.706	0.002	0.708	135.175
Helicopter	1.820	16.630	12.990	1.240	0.000	0.000	2.020	0.000	0.000	2.010	1.669
Install Underground Fiber Cable	0.002	0.012	0.060	0.000	0.173	0.000	0.173	0.018	0.000	0.018	14.744
On-site	0.002	0.007	0.056	0.000	0.000	0.000	0.000	0.000	0.000	0.000	11.086
Off-site	0.000	0.005	0.004	0.000	0.173	0.000	0.173	0.018	0.000	0.018	3.658
Install Overhead Cable	0.001	0.004	0.020	0.000	0.058	0.000	0.058	0.006	0.000	0.006	4.844
On-site	0.001	0.002	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.695
Off-site	0.000	0.001	0.001	0.000	0.058	0.000	0.058	0.006	0.000	0.006	1.149
Install Manholes	0.002	0.024	0.075	0.000	0.200	0.000	0.200	0.020	0.000	0.021	17.059
On-site	0.002	0.018	0.071	0.000	0.000	0.000	0.000	0.000	0.000	0.000	12.969
Off-site	0.000	0.006	0.004	0.000	0.200	0.000	0.200	0.020	0.000	0.020	4.091
Install Fiber Cable	0.002	0.011	0.054	0.000	0.154	0.000	0.154	0.016	0.000	0.016	13.085
On-site	0.001	0.006	0.051	0.000	0.000	0.000	0.000	0.000	0.000	0.000	9.938
Off-site	0.000	0.005	0.003	0.000	0.154	0.000	0.154	0.016	0.000	0.016	3.147
Remove/Install New Distribution Poles	0.001	0.004	0.026	0.000	0.039	0.000	0.039	0.004	0.000	0.004	5.773
On-site	0.001	0.003	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.943
Off-site	0.000	0.001	0.001	0.000	0.039	0.000	0.039	0.004	0.000	0.004	0.830
Cable Splicing	0.007	0.044	0.227	0.001	0.646	0.001	0.647	0.065	0.001	0.066	54.956
On-site	0.006	0.025	0.214	0.000	0.000	0.001	0.001	0.000	0.001	0.001	41.740
Off-site	0.001	0.019	0.013	0.000	0.646	0.000	0.646	0.065	0.000	0.066	13.216
Restoration	0.009	0.053	0.349	0.001	0.869	0.001	0.870	0.088	0.001	0.089	67.056
On-site	0.007	0.030	0.332	0.001	0.007	0.001	0.008	0.001	0.001	0.002	49.831
Off-site	0.002	0.023	0.017	0.000	0.862	0.000	0.862	0.087	0.000	0.087	17.226
Splice Enclosure and Riser	0.000	0.003	0.013	0.000	0.046	0.000	0.046	0.005	0.000	0.005	3.318
On-site	0.000	0.001	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.217
Off-site	0.000	0.001	0.002	0.000	0.046	0.000	0.046	0.005	0.000	0.005	1.101
Total CO₂e Emissions (tons)										946.960	

Total LVRAS Segments 1 and 2 Annual Emissions by Phase (tons/year) - with APMs

	ROG	NO _x	CO	SO ₂	Fugitive PM ₁₀	Exhaust PM ₁₀	PM ₁₀ Total	Fugitive PM _{2.5}	Exhaust PM _{2.5}	PM _{2.5} Total	CO ₂ e
TOTAL	1.964	17.535	17.676	1.252	12.018	0.021	14.058	1.216	0.019	3.236	1161.932

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

LVRAS Segment 1 Construction Activities - with APMs

Mojave Desert AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	61.85	Acre	61.85	2,694,186.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	30
Climate Zone	10			Operational Year	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	390.98	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Based on acres disturbed during construction.

Construction Phase - Provided by SCE

Off-road Equipment - Provided by SCE - Off Hwy Truck used as proxy for splice lab with load factor for Other Const Equip lift due to model limits

Off-road Equipment - Provided by SCE

Off-road Equipment - Provided by SCE - crane used as proxy for manlift/bucket truck with load factor for aerial lift due to model limits

Off-road Equipment - Provided by SCE - crane used as proxy for manlift/bucket truck with load factor for aerial lift due to model limits

Off-road Equipment - Provided by SCE

Off-road Equipment - Provided by SCE

Off-road Equipment - Provided by SCE

Trips and VMT - Provided by SCE - VMT based on original Segment 1 AQ/GHG modeling

On-road Fugitive Dust - Based on original Segment 1 AQ/GHG modeling

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tbITripsAndVMT	VendorTripNumber	0.00	2.00
tbITripsAndVMT	VendorTripNumber	0.00	4.00
tbITripsAndVMT	VendorTripNumber	0.00	2.00
tbITripsAndVMT	VendorTripNumber	0.00	4.00
tbITripsAndVMT	VendorTripNumber	0.00	2.00
tbITripsAndVMT	VendorTripNumber	442.00	2.00
tbITripsAndVMT	VendorTripNumber	442.00	2.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripNumber	8.00	12.00
tbITripsAndVMT	WorkerTripNumber	5.00	8.00
tbITripsAndVMT	WorkerTripNumber	8.00	12.00
tbITripsAndVMT	WorkerTripNumber	5.00	10.00
tbITripsAndVMT	WorkerTripNumber	1,132.00	10.00
tbITripsAndVMT	WorkerTripNumber	1,132.00	6.00

2.0 Emissions Summary

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-2-2023	4-1-2023	0.9575	0.2218
2	4-2-2023	7-1-2023	0.0277	0.0134
		Highest	0.9575	0.2218

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2679	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1100e-003	1.1100e-003	0.0000	0.0000	1.1800e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.2679	1.0000e-005	5.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.1100e-003	1.1100e-003	0.0000	0.0000	1.1800e-003

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2679	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1100e-003	1.1100e-003	0.0000	0.0000	1.1800e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.2679	1.0000e-005	5.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.1100e-003	1.1100e-003	0.0000	0.0000	1.1800e-003

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Wooden Pole Installation	Grading	1/2/2023	1/24/2023	6	20	
2	Manhole Installation	Grading	1/2/2023	1/21/2023	6	18	
3	Remove/Install New Poles	Grading	1/2/2023	2/16/2023	6	40	

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Install Conduit Trench	Trenching	1/2/2023	1/30/2023	6	25
5	Install Underground Fiber Cable	Trenching	1/2/2023	1/12/2023	6	10
6	Install Overhead Fiber Cable	Building Construction	1/2/2023	3/29/2023	6	75
7	Fiber Cable Splicing	Building Construction	3/30/2023	4/19/2023	6	18

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 61.85

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Wooden Pole Installation	Aerial Lifts	1	10.00	300	0.31
Wooden Pole Installation	Air Compressors	1	10.00	60	0.48
Wooden Pole Installation	Cranes	1	10.00	350	0.29
Wooden Pole Installation	Off-Highway Trucks	1	10.00	300	0.38
Manhole Installation	Air Compressors	1	10.00	60	0.48
Manhole Installation	Cranes	1	10.00	350	0.29
Manhole Installation	Tractors/Loaders/Backhoes	1	10.00	200	0.37
Remove/Install New Poles	Aerial Lifts	1	10.00	300	0.31
Remove/Install New Poles	Off-Highway Trucks	1	10.00	300	0.38
Install Conduit Trench	Air Compressors	1	10.00	60	0.48
Install Conduit Trench	Cranes	1	10.00	350	0.29
Install Conduit Trench	Tractors/Loaders/Backhoes	1	10.00	200	0.37
Install Underground Fiber Cable	Cranes	2	10.00	250	0.29
Install Overhead Fiber Cable	Cranes	2	10.00	250	0.29
Fiber Cable Splicing	Off-Highway Trucks	1	10.00	250	0.38

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Wooden Pole Installation	4	10.00	2.00	0.00	15.00	6.00	6.00	LD_Mix	HDT_Mix	HHDT
Manhole Installation	3	12.00	4.00	4.00	15.00	6.00	6.00	LD_Mix	HDT_Mix	HHDT
Remove/Install New Poles	2	8.00	2.00	2.00	15.00	6.00	6.00	LD_Mix	HDT_Mix	HHDT
Install Conduit Trench	3	12.00	4.00	4.00	15.00	6.00	6.00	LD_Mix	HDT_Mix	HHDT
Install Underground Fiber Cable	2	10.00	2.00	4.00	15.00	6.00	6.00	LD_Mix	HDT_Mix	HHDT
Install Overhead Fiber Cable	2	10.00	2.00	4.00	15.00	6.00	6.00	LD_Mix	HDT_Mix	HHDT
Fiber Cable Splicing	1	6.00	2.00	2.00	15.00	6.00	6.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Wooden Pole Installation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0141	0.1194	0.1186	3.7000e-004		4.5700e-003	4.5700e-003		4.2800e-003	4.2800e-003	0.0000	32.4723	32.4723	9.6400e-003	0.0000	32.7133
Total	0.0141	0.1194	0.1186	3.7000e-004	0.0000	4.5700e-003	4.5700e-003	0.0000	4.2800e-003	4.2800e-003	0.0000	32.4723	32.4723	9.6400e-003	0.0000	32.7133

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Wooden Pole Installation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-005	6.4000e-004	3.4000e-004	0.0000	0.0277	1.0000e-005	0.0277	2.7800e-003	1.0000e-005	2.7800e-003	0.0000	0.3172	0.3172	0.0000	4.0000e-005	0.3301
Worker	3.7000e-004	2.8000e-004	3.1600e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	0.0000	3.0000e-004	0.0000	0.8657	0.8657	2.0000e-005	2.0000e-005	0.8734
Total	4.0000e-004	9.2000e-004	3.5000e-003	1.0000e-005	0.0288	2.0000e-005	0.0288	3.0800e-003	1.0000e-005	3.0800e-003	0.0000	1.1828	1.1828	2.0000e-005	6.0000e-005	1.2035

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9300e-003	0.0442	0.1648	3.7000e-004		9.4000e-004	9.4000e-004		9.0000e-004	9.0000e-004	0.0000	32.4723	32.4723	9.6400e-003	0.0000	32.7132
Total	5.9300e-003	0.0442	0.1648	3.7000e-004	0.0000	9.4000e-004	9.4000e-004	0.0000	9.0000e-004	9.0000e-004	0.0000	32.4723	32.4723	9.6400e-003	0.0000	32.7132

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Wooden Pole Installation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-005	6.4000e-004	3.4000e-004	0.0000	0.0196	1.0000e-005	0.0196	1.9700e-003	1.0000e-005	1.9800e-003	0.0000	0.3172	0.3172	0.0000	4.0000e-005	0.3301
Worker	3.7000e-004	2.8000e-004	3.1600e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	0.0000	3.0000e-004	0.0000	0.8657	0.8657	2.0000e-005	2.0000e-005	0.8734
Total	4.0000e-004	9.2000e-004	3.5000e-003	1.0000e-005	0.0207	2.0000e-005	0.0207	2.2700e-003	1.0000e-005	2.2800e-003	0.0000	1.1828	1.1828	2.0000e-005	6.0000e-005	1.2035

3.3 Manhole Installation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.4500e-003	0.0889	0.0782	2.0000e-004		3.7100e-003	3.7100e-003		3.4800e-003	3.4800e-003	0.0000	17.8320	17.8320	4.9900e-003	0.0000	17.9567
Total	9.4500e-003	0.0889	0.0782	2.0000e-004	0.0000	3.7100e-003	3.7100e-003	0.0000	3.4800e-003	3.4800e-003	0.0000	17.8320	17.8320	4.9900e-003	0.0000	17.9567

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Manhole Installation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.0000e-004	5.0000e-005	0.0000	2.7600e-003	0.0000	2.7700e-003	2.8000e-004	0.0000	2.8000e-004	0.0000	0.0373	0.0373	0.0000	1.0000e-005	0.0390
Vendor	5.0000e-005	1.1500e-003	6.1000e-004	1.0000e-005	0.0498	1.0000e-005	0.0498	5.0000e-003	1.0000e-005	5.0100e-003	0.0000	0.5709	0.5709	0.0000	8.0000e-005	0.5942
Worker	4.0000e-004	3.0000e-004	3.4200e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9349	0.9349	2.0000e-005	3.0000e-005	0.9433
Total	4.5000e-004	1.5500e-003	4.0800e-003	2.0000e-005	0.0537	2.0000e-005	0.0538	5.6000e-003	2.0000e-005	5.6200e-003	0.0000	1.5431	1.5431	2.0000e-005	1.2000e-004	1.5765

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7800e-003	0.0247	0.0978	2.0000e-004		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	17.8319	17.8319	4.9900e-003	0.0000	17.9567
Total	2.7800e-003	0.0247	0.0978	2.0000e-004	0.0000	3.2000e-004	3.2000e-004	0.0000	3.2000e-004	3.2000e-004	0.0000	17.8319	17.8319	4.9900e-003	0.0000	17.9567

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Manhole Installation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.0000e-004	5.0000e-005	0.0000	1.9600e-003	0.0000	1.9600e-003	2.0000e-004	0.0000	2.0000e-004	0.0000	0.0373	0.0373	0.0000	1.0000e-005	0.0390
Vendor	5.0000e-005	1.1500e-003	6.1000e-004	1.0000e-005	0.0352	1.0000e-005	0.0353	3.5500e-003	1.0000e-005	3.5600e-003	0.0000	0.5709	0.5709	0.0000	8.0000e-005	0.5942
Worker	4.0000e-004	3.0000e-004	3.4200e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9349	0.9349	2.0000e-005	3.0000e-005	0.9433
Total	4.5000e-004	1.5500e-003	4.0800e-003	2.0000e-005	0.0384	2.0000e-005	0.0384	4.0700e-003	2.0000e-005	4.0900e-003	0.0000	1.5431	1.5431	2.0000e-005	1.2000e-004	1.5765

3.4 Remove/Install New Poles - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0126	0.0930	0.1008	4.5000e-004		2.7900e-003	2.7900e-003		2.5600e-003	2.5600e-003	0.0000	39.2227	39.2227	0.0127	0.0000	39.5398
Total	0.0126	0.0930	0.1008	4.5000e-004	0.0000	2.7900e-003	2.7900e-003	0.0000	2.5600e-003	2.5600e-003	0.0000	39.2227	39.2227	0.0127	0.0000	39.5398

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Remove/Install New Poles - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	5.0000e-005	3.0000e-005	0.0000	1.3800e-003	0.0000	1.3800e-003	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0186	0.0186	0.0000	0.0000	0.0195
Vendor	6.0000e-005	1.2800e-003	6.8000e-004	1.0000e-005	0.0553	1.0000e-005	0.0553	5.5600e-003	1.0000e-005	5.5700e-003	0.0000	0.6343	0.6343	0.0000	9.0000e-005	0.6603
Worker	5.9000e-004	4.4000e-004	5.0600e-003	1.0000e-005	1.7900e-003	1.0000e-005	1.8000e-003	4.8000e-004	1.0000e-005	4.8000e-004	0.0000	1.3850	1.3850	4.0000e-005	4.0000e-005	1.3974
Total	6.5000e-004	1.7700e-003	5.7700e-003	2.0000e-005	0.0585	2.0000e-005	0.0585	6.1800e-003	2.0000e-005	6.1900e-003	0.0000	2.0380	2.0380	4.0000e-005	1.3000e-004	2.0772

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.6500e-003	0.0419	0.1841	4.5000e-004		1.4100e-003	1.4100e-003		1.3500e-003	1.3500e-003	0.0000	39.2226	39.2226	0.0127	0.0000	39.5397
Total	7.6500e-003	0.0419	0.1841	4.5000e-004	0.0000	1.4100e-003	1.4100e-003	0.0000	1.3500e-003	1.3500e-003	0.0000	39.2226	39.2226	0.0127	0.0000	39.5397

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Remove/Install New Poles - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	5.0000e-005	3.0000e-005	0.0000	9.8000e-004	0.0000	9.8000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0186	0.0186	0.0000	0.0000	0.0195
Vendor	6.0000e-005	1.2800e-003	6.8000e-004	1.0000e-005	0.0392	1.0000e-005	0.0392	3.9400e-003	1.0000e-005	3.9500e-003	0.0000	0.6343	0.6343	0.0000	9.0000e-005	0.6603
Worker	5.9000e-004	4.4000e-004	5.0600e-003	1.0000e-005	1.7900e-003	1.0000e-005	1.8000e-003	4.8000e-004	1.0000e-005	4.8000e-004	0.0000	1.3850	1.3850	4.0000e-005	4.0000e-005	1.3974
Total	6.5000e-004	1.7700e-003	5.7700e-003	2.0000e-005	0.0419	2.0000e-005	0.0420	4.5200e-003	2.0000e-005	4.5300e-003	0.0000	2.0380	2.0380	4.0000e-005	1.3000e-004	2.0772

3.5 Install Conduit Trench - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0131	0.1235	0.1087	2.8000e-004		5.1500e-003	5.1500e-003		4.8300e-003	4.8300e-003	0.0000	24.7666	24.7666	6.9300e-003	0.0000	24.9399
Total	0.0131	0.1235	0.1087	2.8000e-004		5.1500e-003	5.1500e-003		4.8300e-003	4.8300e-003	0.0000	24.7666	24.7666	6.9300e-003	0.0000	24.9399

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Install Conduit Trench - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.0000e-004	5.0000e-005	0.0000	2.7600e-003	0.0000	2.7700e-003	2.8000e-004	0.0000	2.8000e-004	0.0000	0.0373	0.0373	0.0000	1.0000e-005	0.0390
Vendor	7.0000e-005	1.6000e-003	8.5000e-004	1.0000e-005	0.0691	1.0000e-005	0.0691	6.9500e-003	1.0000e-005	6.9600e-003	0.0000	0.7929	0.7929	0.0000	1.1000e-004	0.8253
Worker	5.6000e-004	4.1000e-004	4.7500e-003	1.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.5000e-004	0.0000	1.2985	1.2985	3.0000e-005	4.0000e-005	1.3101
Total	6.3000e-004	2.1100e-003	5.6500e-003	2.0000e-005	0.0736	2.0000e-005	0.0736	7.6800e-003	2.0000e-005	7.6900e-003	0.0000	2.1286	2.1286	3.0000e-005	1.6000e-004	2.1744

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.8500e-003	0.0343	0.1358	2.8000e-004		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	24.7666	24.7666	6.9300e-003	0.0000	24.9399
Total	3.8500e-003	0.0343	0.1358	2.8000e-004		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	24.7666	24.7666	6.9300e-003	0.0000	24.9399

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Install Conduit Trench - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.0000e-004	5.0000e-005	0.0000	1.9600e-003	0.0000	1.9600e-003	2.0000e-004	0.0000	2.0000e-004	0.0000	0.0373	0.0373	0.0000	1.0000e-005	0.0390
Vendor	7.0000e-005	1.6000e-003	8.5000e-004	1.0000e-005	0.0490	1.0000e-005	0.0490	4.9300e-003	1.0000e-005	4.9400e-003	0.0000	0.7929	0.7929	0.0000	1.1000e-004	0.8253
Worker	5.6000e-004	4.1000e-004	4.7500e-003	1.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.5000e-004	0.0000	1.2985	1.2985	3.0000e-005	4.0000e-005	1.3101
Total	6.3000e-004	2.1100e-003	5.6500e-003	2.0000e-005	0.0526	2.0000e-005	0.0526	5.5800e-003	2.0000e-005	5.5900e-003	0.0000	2.1286	2.1286	3.0000e-005	1.6000e-004	2.1744

3.6 Install Underground Fiber Cable - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.7500e-003	0.0516	0.0248	8.0000e-005		2.1600e-003	2.1600e-003		1.9800e-003	1.9800e-003	0.0000	6.8581	6.8581	2.2200e-003	0.0000	6.9136
Total	4.7500e-003	0.0516	0.0248	8.0000e-005		2.1600e-003	2.1600e-003		1.9800e-003	1.9800e-003	0.0000	6.8581	6.8581	2.2200e-003	0.0000	6.9136

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Install Underground Fiber Cable - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.0000e-004	5.0000e-005	0.0000	2.7600e-003	0.0000	2.7700e-003	2.8000e-004	0.0000	2.8000e-004	0.0000	0.0373	0.0373	0.0000	1.0000e-005	0.0390
Vendor	1.0000e-005	3.2000e-004	1.7000e-004	0.0000	0.0138	0.0000	0.0138	1.3900e-003	0.0000	1.3900e-003	0.0000	0.1586	0.1586	0.0000	2.0000e-005	0.1651
Worker	1.9000e-004	1.4000e-004	1.5800e-003	0.0000	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4328	0.4328	1.0000e-005	1.0000e-005	0.4367
Total	2.0000e-004	5.6000e-004	1.8000e-003	0.0000	0.0172	0.0000	0.0172	1.8200e-003	0.0000	1.8200e-003	0.0000	0.6287	0.6287	1.0000e-005	4.0000e-005	0.6408

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.6000e-004	4.1600e-003	0.0352	8.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	6.8581	6.8581	2.2200e-003	0.0000	6.9136
Total	9.6000e-004	4.1600e-003	0.0352	8.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	6.8581	6.8581	2.2200e-003	0.0000	6.9136

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Install Underground Fiber Cable - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.0000e-004	5.0000e-005	0.0000	1.9600e-003	0.0000	1.9600e-003	2.0000e-004	0.0000	2.0000e-004	0.0000	0.0373	0.0373	0.0000	1.0000e-005	0.0390
Vendor	1.0000e-005	3.2000e-004	1.7000e-004	0.0000	9.7900e-003	0.0000	9.7900e-003	9.9000e-004	0.0000	9.9000e-004	0.0000	0.1586	0.1586	0.0000	2.0000e-005	0.1651
Worker	1.9000e-004	1.4000e-004	1.5800e-003	0.0000	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4328	0.4328	1.0000e-005	1.0000e-005	0.4367
Total	2.0000e-004	5.6000e-004	1.8000e-003	0.0000	0.0123	0.0000	0.0123	1.3400e-003	0.0000	1.3400e-003	0.0000	0.6287	0.6287	1.0000e-005	4.0000e-005	0.6408

3.7 Install Overhead Fiber Cable - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0357	0.3871	0.1861	5.9000e-004		0.0162	0.0162		0.0149	0.0149	0.0000	51.4359	51.4359	0.0166	0.0000	51.8518
Total	0.0357	0.3871	0.1861	5.9000e-004		0.0162	0.0162		0.0149	0.0149	0.0000	51.4359	51.4359	0.0166	0.0000	51.8518

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Install Overhead Fiber Cable - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.0000e-004	5.0000e-005	0.0000	2.7600e-003	0.0000	2.7700e-003	2.8000e-004	0.0000	2.8000e-004	0.0000	0.0373	0.0373	0.0000	1.0000e-005	0.0390
Vendor	1.0000e-004	2.4000e-003	1.2800e-003	1.0000e-005	0.1037	2.0000e-005	0.1037	0.0104	2.0000e-005	0.0104	0.0000	1.1893	1.1893	1.0000e-005	1.6000e-004	1.2380
Worker	1.3900e-003	1.0300e-003	0.0119	3.0000e-005	4.2000e-003	2.0000e-005	4.2200e-003	1.1200e-003	2.0000e-005	1.1300e-003	0.0000	3.2462	3.2462	8.0000e-005	9.0000e-005	3.2752
Total	1.4900e-003	3.5300e-003	0.0132	4.0000e-005	0.1107	4.0000e-005	0.1107	0.0118	4.0000e-005	0.0119	0.0000	4.4728	4.4728	9.0000e-005	2.6000e-004	4.5522

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.1900e-003	0.0312	0.2637	5.9000e-004		9.6000e-004	9.6000e-004		9.6000e-004	9.6000e-004	0.0000	51.4358	51.4358	0.0166	0.0000	51.8517
Total	7.1900e-003	0.0312	0.2637	5.9000e-004		9.6000e-004	9.6000e-004		9.6000e-004	9.6000e-004	0.0000	51.4358	51.4358	0.0166	0.0000	51.8517

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Install Overhead Fiber Cable - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.0000e-004	5.0000e-005	0.0000	1.9600e-003	0.0000	1.9600e-003	2.0000e-004	0.0000	2.0000e-004	0.0000	0.0373	0.0373	0.0000	1.0000e-005	0.0390
Vendor	1.0000e-004	2.4000e-003	1.2800e-003	1.0000e-005	0.0734	2.0000e-005	0.0734	7.3900e-003	2.0000e-005	7.4100e-003	0.0000	1.1893	1.1893	1.0000e-005	1.6000e-004	1.2380
Worker	1.3900e-003	1.0300e-003	0.0119	3.0000e-005	4.2000e-003	2.0000e-005	4.2200e-003	1.1200e-003	2.0000e-005	1.1300e-003	0.0000	3.2462	3.2462	8.0000e-005	9.0000e-005	3.2752
Total	1.4900e-003	3.5300e-003	0.0132	4.0000e-005	0.0796	4.0000e-005	0.0796	8.7100e-003	4.0000e-005	8.7400e-003	0.0000	4.4728	4.4728	9.0000e-005	2.6000e-004	4.5522

3.8 Fiber Cable Splicing - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.9000e-003	0.0274	0.0240	9.0000e-005		1.1100e-003	1.1100e-003		1.0200e-003	1.0200e-003	0.0000	8.0275	8.0275	2.6000e-003	0.0000	8.0924
Total	3.9000e-003	0.0274	0.0240	9.0000e-005		1.1100e-003	1.1100e-003		1.0200e-003	1.0200e-003	0.0000	8.0275	8.0275	2.6000e-003	0.0000	8.0924

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.8 Fiber Cable Splicing - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	5.0000e-005	3.0000e-005	0.0000	1.3800e-003	0.0000	1.3800e-003	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0186	0.0186	0.0000	0.0000	0.0195
Vendor	2.0000e-005	5.8000e-004	3.1000e-004	0.0000	0.0249	1.0000e-005	0.0249	2.5000e-003	0.0000	2.5100e-003	0.0000	0.2854	0.2854	0.0000	4.0000e-005	0.2971
Worker	2.0000e-004	1.5000e-004	1.7100e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4675	0.4675	1.0000e-005	1.0000e-005	0.4716
Total	2.2000e-004	7.8000e-004	2.0500e-003	1.0000e-005	0.0269	1.0000e-005	0.0269	2.8000e-003	0.0000	2.8100e-003	0.0000	0.7715	0.7715	1.0000e-005	5.0000e-005	0.7882

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.0700e-003	0.0126	0.0355	9.0000e-005		4.8000e-004	4.8000e-004		4.5000e-004	4.5000e-004	0.0000	8.0275	8.0275	2.6000e-003	0.0000	8.0924
Total	2.0700e-003	0.0126	0.0355	9.0000e-005		4.8000e-004	4.8000e-004		4.5000e-004	4.5000e-004	0.0000	8.0275	8.0275	2.6000e-003	0.0000	8.0924

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.8 Fiber Cable Splicing - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	5.0000e-005	3.0000e-005	0.0000	9.8000e-004	0.0000	9.8000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0186	0.0186	0.0000	0.0000	0.0195
Vendor	2.0000e-005	5.8000e-004	3.1000e-004	0.0000	0.0176	1.0000e-005	0.0176	1.7700e-003	0.0000	1.7800e-003	0.0000	0.2854	0.2854	0.0000	4.0000e-005	0.2971
Worker	2.0000e-004	1.5000e-004	1.7100e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4675	0.4675	1.0000e-005	1.0000e-005	0.4716
Total	2.2000e-004	7.8000e-004	2.0500e-003	1.0000e-005	0.0192	1.0000e-005	0.0192	2.0300e-003	0.0000	2.0400e-003	0.0000	0.7715	0.7715	1.0000e-005	5.0000e-005	0.7882

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.526992	0.056742	0.174739	0.140288	0.030240	0.007815	0.006009	0.021774	0.000488	0.000160	0.028107	0.000925	0.005722

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2679	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1100e-003	1.1100e-003	0.0000	0.0000	1.1800e-003
Unmitigated	0.2679	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1100e-003	1.1100e-003	0.0000	0.0000	1.1800e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0937					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1742					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1100e-003	1.1100e-003	0.0000	0.0000	1.1800e-003
Total	0.2679	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1100e-003	1.1100e-003	0.0000	0.0000	1.1800e-003

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0937					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1742					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1100e-003	1.1100e-003	0.0000	0.0000	1.1800e-003
Total	0.2679	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1100e-003	1.1100e-003	0.0000	0.0000	1.1800e-003

7.0 Water Detail

7.1 Mitigation Measures Water

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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LVRAS Segment 1 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

LVRAS Segment 2 Construction Activities - with APMs

Mojave Desert AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	154.32	Acre	154.32	6,722,179.20	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	30
Climate Zone	10	Operational Year	2024		
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	390.98	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Based on acresd disturbed during construction (CA + NV)

Construction Phase - Provided by SCE

Off-road Equipment - Provided by SCE

Off-road Equipment - Provided by SCE

Off-road Equipment - Provided by SCE - Off Hwy Truck used as proxy for splice lab with load factor for Other Const Equip lift due to model limits

Off-road Equipment - Provided by SCE

Off-road Equipment - Provided by SCE - crane used as proxy for boom truck with load factor for aerial lift due to model limits

Off-road Equipment - Provided by SCE - crane used as proxy for boom truck with load factor for aerial lift due to model limits

Off-road Equipment - Provided by SCE - Off Hwy Truck used as proxy for splice lab with load factor for Other Const Equip lift due to model limits

Off-road Equipment - Provided by SCE

Off-road Equipment - Provided by SCE

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Off-road Equipment - Provided by SCE

Off-road Equipment - Provided by SCE - crane used as proxy for boom truck with load factor for aerial lift due to model limits

Off-road Equipment - Provided by SCE

Off-road Equipment - Provided by SCE

Off-road Equipment - Provided by SCE

Trips and VMT - Provided by SCE - VMT based on original Segment 2 AQ/GHG modeling

On-road Fugitive Dust - Provided by SCE - based on original Segment 2 AQ/GHG modeling

Grading - -

Vehicle Trips -

Construction Off-road Equipment Mitigation - APMs AIR-1 and AIR-2, compliance with MDAQMD Rule 403; unpaved road mitigation 20mph

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	20
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	17.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	NumDaysWeek	5.00	6.00
tblOffRoadEquipment	HorsePower	231.00	250.00
tblOffRoadEquipment	HorsePower	231.00	250.00
tblOffRoadEquipment	HorsePower	231.00	250.00
tblOffRoadEquipment	HorsePower	231.00	250.00
tblOffRoadEquipment	HorsePower	231.00	250.00
tblOffRoadEquipment	HorsePower	97.00	200.00
tblOffRoadEquipment	HorsePower	97.00	125.00
tblOffRoadEquipment	HorsePower	97.00	125.00
tblOffRoadEquipment	HorsePower	63.00	300.00
tblOffRoadEquipment	HorsePower	78.00	60.00
tblOffRoadEquipment	HorsePower	78.00	60.00
tblOffRoadEquipment	HorsePower	231.00	350.00
tblOffRoadEquipment	HorsePower	231.00	250.00
tblOffRoadEquipment	HorsePower	231.00	350.00
tblOffRoadEquipment	HorsePower	212.00	150.00
tblOffRoadEquipment	HorsePower	187.00	250.00
tblOffRoadEquipment	HorsePower	187.00	250.00
tblOffRoadEquipment	HorsePower	402.00	250.00
tblOffRoadEquipment	HorsePower	402.00	300.00
tblOffRoadEquipment	HorsePower	402.00	250.00
tblOffRoadEquipment	HorsePower	172.00	300.00
tblOffRoadEquipment	HorsePower	80.00	100.00
tblOffRoadEquipment	HorsePower	100.00	125.00
tblOffRoadEquipment	HorsePower	97.00	200.00
tblOffRoadEquipment	LoadFactor	0.29	0.31
tblOffRoadEquipment	LoadFactor	0.29	0.31
tblOffRoadEquipment	LoadFactor	0.29	0.31
tblOffRoadEquipment	LoadFactor	0.38	0.42

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tbITripsAndVMT	HaulingTripLength	20.00	25.00
tbITripsAndVMT	HaulingTripNumber	0.00	40.00
tbITripsAndVMT	HaulingTripNumber	0.00	10.00
tbITripsAndVMT	HaulingTripNumber	0.00	168.00
tbITripsAndVMT	HaulingTripNumber	0.00	112.00
tbITripsAndVMT	HaulingTripNumber	0.00	12.00
tbITripsAndVMT	HaulingTripNumber	0.00	60.00
tbITripsAndVMT	HaulingTripNumber	0.00	520.00
tbITripsAndVMT	HaulingTripNumber	0.00	60.00
tbITripsAndVMT	HaulingTripNumber	0.00	52.00
tbITripsAndVMT	VendorTripLength	6.60	25.00
tbITripsAndVMT	VendorTripLength	6.60	25.00
tbITripsAndVMT	VendorTripLength	6.60	25.00
tbITripsAndVMT	VendorTripLength	6.60	25.00
tbITripsAndVMT	VendorTripLength	6.60	25.00
tbITripsAndVMT	VendorTripLength	6.60	25.00
tbITripsAndVMT	VendorTripLength	6.60	25.00
tbITripsAndVMT	VendorTripLength	6.60	25.00
tbITripsAndVMT	VendorTripLength	6.60	25.00
tbITripsAndVMT	VendorTripLength	6.60	25.00
tbITripsAndVMT	VendorTripLength	6.60	25.00
tbITripsAndVMT	VendorTripLength	6.60	25.00
tbITripsAndVMT	VendorTripLength	6.60	25.00
tbITripsAndVMT	VendorTripLength	6.60	25.00
tbITripsAndVMT	VendorTripLength	6.60	25.00
tbITripsAndVMT	VendorTripLength	6.60	25.00
tbITripsAndVMT	VendorTripLength	6.60	25.00
tbITripsAndVMT	VendorTripNumber	0.00	4.00
tbITripsAndVMT	VendorTripNumber	0.00	2.00
tbITripsAndVMT	VendorTripNumber	0.00	2.00
tbITripsAndVMT	VendorTripNumber	1,102.00	2.00
tbITripsAndVMT	VendorTripNumber	0.00	6.00

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tbITripsAndVMT	VendorTripNumber	1,102.00	2.00
tbITripsAndVMT	VendorTripNumber	0.00	4.00
tbITripsAndVMT	VendorTripNumber	0.00	4.00
tbITripsAndVMT	VendorTripNumber	1,102.00	12.00
tbITripsAndVMT	VendorTripNumber	1,102.00	4.00
tbITripsAndVMT	VendorTripNumber	1,102.00	24.00
tbITripsAndVMT	VendorTripNumber	0.00	2.00
tbITripsAndVMT	VendorTripNumber	1,102.00	6.00
tbITripsAndVMT	VendorTripNumber	0.00	4.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripLength	16.80	15.00
tbITripsAndVMT	WorkerTripNumber	3.00	8.00
tbITripsAndVMT	WorkerTripNumber	3.00	6.00
tbITripsAndVMT	WorkerTripNumber	5.00	8.00
tbITripsAndVMT	WorkerTripNumber	2,823.00	6.00
tbITripsAndVMT	WorkerTripNumber	8.00	12.00
tbITripsAndVMT	WorkerTripNumber	2,823.00	12.00

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tbITripsAndVMT	WorkerTripNumber	8.00	10.00
tbITripsAndVMT	WorkerTripNumber	8.00	12.00
tbITripsAndVMT	WorkerTripNumber	2,823.00	24.00
tbITripsAndVMT	WorkerTripNumber	2,823.00	8.00
tbITripsAndVMT	WorkerTripNumber	2,823.00	36.00
tbITripsAndVMT	WorkerTripNumber	5.00	10.00
tbITripsAndVMT	WorkerTripNumber	2,823.00	10.00
tbITripsAndVMT	WorkerTripNumber	8.00	12.00

2.0 Emissions Summary

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-2-2023	4-1-2023	2.4645	0.4515
2	4-2-2023	7-1-2023	1.6890	0.3316
3	7-2-2023	9-30-2023	0.0538	0.0144
		Highest	2.4645	0.4515

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.6683	1.0000e-005	1.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.7600e-003	2.7600e-003	1.0000e-005	0.0000	2.9400e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.6683	1.0000e-005	1.4200e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.0000	2.7600e-003	2.7600e-003	1.0000e-005	0.0000	2.9400e-003

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.6683	1.0000e-005	1.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.7600e-003	2.7600e-003	1.0000e-005	0.0000	2.9400e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.6683	1.0000e-005	1.4200e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.0000	2.7600e-003	2.7600e-003	1.0000e-005	0.0000	2.9400e-003

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	OPGW Staging/Material Yard	Site Preparation	1/2/2023	7/15/2023	6	168	
2	OPGW ROW Clearing	Site Preparation	1/2/2023	3/7/2023	6	56	
3	Install Conduit Trench	Trenching	1/2/2023	1/18/2023	6	15	

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	OPGW LST Modifications	Building Construction	1/2/2023	1/25/2023	6	21
5	Guard Structure Install/Removal	Building Construction	1/9/2023	1/25/2023	6	15
6	Remove Existing OHGW and Install OPGW	Building Construction	1/9/2023	6/8/2023	6	130
7	Install Underground Fiber Cable	Trenching	1/23/2023	2/8/2023	6	15
8	Install Overhead Cable	Building Construction	2/13/2023	2/17/2023	6	5
9	Install Manholes	Grading	2/20/2023	3/6/2023	6	13
10	Install Fiber Cable	Trenching	3/13/2023	4/4/2023	6	20
11	Remove/Install New Distribution Poles	Grading	4/3/2023	4/7/2023	6	5
12	OPGW Cable Splicing	Building Construction	4/10/2023	7/15/2023	6	84
13	OPGW Restoration	Site Preparation	4/24/2023	6/27/2023	6	56
14	OPGW Splice Enclosure and Riser	Building Construction	7/31/2023	8/5/2023	6	6

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 154.32

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
OPGW Staging/Material Yard	Rough Terrain Forklifts	1	10.00	125	0.40
OPGW ROW Clearing	Crawler Tractors	1	10.00	150	0.43
OPGW ROW Clearing	Graders	1	10.00	250	0.41
OPGW ROW Clearing	Tractors/Loaders/Backhoes	1	10.00	125	0.37
Install Conduit Trench	Air Compressors	1	10.00	60	0.48
Install Conduit Trench	Cranes	1	10.00	350	0.29
Install Conduit Trench	Tractors/Loaders/Backhoes	1	10.00	200	0.37
OPGW LST Modifications	Cranes	4	10.00	250	0.29

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Guard Structure Install/Removal	Cranes	2	10.00	250	0.29
Remove Existing OHGW and Install OPGW	Cranes	4	10.00	250	0.29
Remove Existing OHGW and Install OPGW	Other Construction Equipment	2	10.00	300	0.42
Install Underground Fiber Cable	Cranes	2	10.00	250	0.31
Install Overhead Cable	Cranes	2	10.00	250	0.31
Install Manholes	Air Compressors	1	10.00	60	0.48
Install Manholes	Cranes	1	10.00	350	0.29
Install Manholes	Tractors/Loaders/Backhoes	1	10.00	200	0.37
Install Fiber Cable	Off-Highway Trucks	1	10.00	250	0.42
Remove/Install New Distribution Poles	Aerial Lifts	1	10.00	300	0.31
Remove/Install New Distribution Poles	Off-Highway Trucks	1	10.00	300	0.38
OPGW Cable Splicing	Off-Highway Trucks	1	10.00	250	0.42
OPGW Restoration	Graders	1	10.00	250	0.41
OPGW Restoration	Rollers	1	10.00	100	0.38
OPGW Restoration	Tractors/Loaders/Backhoes	1	10.00	125	0.37
OPGW Splice Enclosure and Riser	Cranes	1	10.00	250	0.31

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
OPGW Staging/Material Yard	1	8.00	4.00	0.00	15.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
OPGW ROW Clearing	3	10.00	4.00	0.00	15.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Install Conduit Trench	3	12.00	4.00	60.00	15.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
OPGW LST Modifications	4	24.00	12.00	0.00	15.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Guard Structure Install/Removal	2	8.00	4.00	0.00	15.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Remove Existing OHGW and Install OPGW	6	36.00	24.00	520.00	15.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Install Underground Fiber Cable	2	10.00	2.00	60.00	15.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Install Overhead Cable	2	10.00	6.00	0.00	15.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Install Manholes	3	12.00	4.00	52.00	15.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Install Fiber Cable	1	6.00	2.00	40.00	15.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Remove/Install New Distribution Poles	2	8.00	2.00	10.00	15.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
OPGW Cable Splicing	1	6.00	2.00	168.00	15.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
OPGW Restoration	3	12.00	6.00	112.00	15.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
OPGW Splice Enclosure and Riser	1	12.00	2.00	12.00	15.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

- Use Cleaner Engines for Construction Equipment
- Use Soil Stabilizer
- Water Exposed Area
- Reduce Vehicle Speed on Unpaved Roads

3.2 OPGW Staging/Material Yard - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0103	0.1128	0.2632	4.5000e-004		4.0200e-003	4.0200e-003		3.7000e-003	3.7000e-003	0.0000	39.6162	39.6162	0.0128	0.0000	39.9365
Total	0.0103	0.1128	0.2632	4.5000e-004	0.0000	4.0200e-003	4.0200e-003	0.0000	3.7000e-003	3.7000e-003	0.0000	39.6162	39.6162	0.0128	0.0000	39.9365

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 OPGW Staging/Material Yard - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.3000e-004	0.0299	8.9200e-003	2.1000e-004	9.0802	3.9000e-004	9.0805	0.9069	3.7000e-004	0.9073	0.0000	20.0391	20.0391	5.0000e-005	2.7000e-003	20.8435
Worker	2.4900e-003	1.8500e-003	0.0213	6.0000e-005	7.5300e-003	4.0000e-005	7.5600e-003	2.0000e-003	3.0000e-005	2.0300e-003	0.0000	5.8172	5.8172	1.5000e-004	1.6000e-004	5.8691
Total	3.4200e-003	0.0317	0.0302	2.7000e-004	9.0877	4.3000e-004	9.0881	0.9089	4.0000e-004	0.9093	0.0000	25.8562	25.8562	2.0000e-004	2.8600e-003	26.7126

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.5600e-003	0.0241	0.3426	4.5000e-004		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	39.6162	39.6162	0.0128	0.0000	39.9365
Total	5.5600e-003	0.0241	0.3426	4.5000e-004	0.0000	7.4000e-004	7.4000e-004	0.0000	7.4000e-004	7.4000e-004	0.0000	39.6162	39.6162	0.0128	0.0000	39.9365

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 OPGW Staging/Material Yard - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.3000e-004	0.0299	8.9200e-003	2.1000e-004	1.2868	3.9000e-004	1.2872	0.1291	3.7000e-004	0.1295	0.0000	20.0391	20.0391	5.0000e-005	2.7000e-003	20.8435
Worker	2.4900e-003	1.8500e-003	0.0213	6.0000e-005	7.5300e-003	4.0000e-005	7.5600e-003	2.0000e-003	3.0000e-005	2.0300e-003	0.0000	5.8172	5.8172	1.5000e-004	1.6000e-004	5.8691
Total	3.4200e-003	0.0317	0.0302	2.7000e-004	1.2943	4.3000e-004	1.2948	0.1311	4.0000e-004	0.1315	0.0000	25.8562	25.8562	2.0000e-004	2.8600e-003	26.7126

3.3 OPGW ROW Clearing - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0371	0.0000	0.0371	4.0100e-003	0.0000	4.0100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0370	0.3937	0.2959	6.4000e-004		0.0166	0.0166		0.0153	0.0153	0.0000	56.3865	56.3865	0.0182	0.0000	56.8424
Total	0.0370	0.3937	0.2959	6.4000e-004	0.0371	0.0166	0.0537	4.0100e-003	0.0153	0.0193	0.0000	56.3865	56.3865	0.0182	0.0000	56.8424

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 OPGW ROW Clearing - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.1000e-004	9.9600e-003	2.9700e-003	7.0000e-005	3.0267	1.3000e-004	3.0269	0.3023	1.2000e-004	0.3024	0.0000	6.6797	6.6797	2.0000e-005	9.0000e-004	6.9478
Worker	1.0400e-003	7.7000e-004	8.8600e-003	3.0000e-005	3.1400e-003	1.0000e-005	3.1500e-003	8.3000e-004	1.0000e-005	8.5000e-004	0.0000	2.4238	2.4238	6.0000e-005	7.0000e-005	2.4455
Total	1.3500e-003	0.0107	0.0118	1.0000e-004	3.0299	1.4000e-004	3.0300	0.3031	1.3000e-004	0.3033	0.0000	9.1035	9.1035	8.0000e-005	9.7000e-004	9.3933

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0145	0.0000	0.0145	1.5600e-003	0.0000	1.5600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.9000e-003	0.0342	0.3922	6.4000e-004		1.0500e-003	1.0500e-003		1.0500e-003	1.0500e-003	0.0000	56.3864	56.3864	0.0182	0.0000	56.8424
Total	7.9000e-003	0.0342	0.3922	6.4000e-004	0.0145	1.0500e-003	0.0155	1.5600e-003	1.0500e-003	2.6100e-003	0.0000	56.3864	56.3864	0.0182	0.0000	56.8424

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 OPGW ROW Clearing - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.1000e-004	9.9600e-003	2.9700e-003	7.0000e-005	0.4289	1.3000e-004	0.4291	0.0430	1.2000e-004	0.0432	0.0000	6.6797	6.6797	2.0000e-005	9.0000e-004	6.9478
Worker	1.0400e-003	7.7000e-004	8.8600e-003	3.0000e-005	3.1400e-003	1.0000e-005	3.1500e-003	8.3000e-004	1.0000e-005	8.5000e-004	0.0000	2.4238	2.4238	6.0000e-005	7.0000e-005	2.4455
Total	1.3500e-003	0.0107	0.0118	1.0000e-004	0.4321	1.4000e-004	0.4322	0.0439	1.3000e-004	0.0440	0.0000	9.1035	9.1035	8.0000e-005	9.7000e-004	9.3933

3.4 Install Conduit Trench - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.8800e-003	0.0741	0.0652	1.7000e-004		3.0900e-003	3.0900e-003		2.9000e-003	2.9000e-003	0.0000	14.8600	14.8600	4.1600e-003	0.0000	14.9639
Total	7.8800e-003	0.0741	0.0652	1.7000e-004		3.0900e-003	3.0900e-003		2.9000e-003	2.9000e-003	0.0000	14.8600	14.8600	4.1600e-003	0.0000	14.9639

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Install Conduit Trench - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-005	3.8300e-003	9.8000e-004	2.0000e-005	0.8107	5.0000e-005	0.8107	0.0810	5.0000e-005	0.0810	0.0000	1.9800	1.9800	0.0000	3.1000e-004	2.0728
Vendor	8.0000e-005	2.6700e-003	8.0000e-004	2.0000e-005	0.8107	3.0000e-005	0.8108	0.0810	3.0000e-005	0.0810	0.0000	1.7892	1.7892	0.0000	2.4000e-004	1.8610
Worker	3.3000e-004	2.5000e-004	2.8500e-003	1.0000e-005	1.0100e-003	0.0000	1.0100e-003	2.7000e-004	0.0000	2.7000e-004	0.0000	0.7791	0.7791	2.0000e-005	2.0000e-005	0.7860
Total	4.9000e-004	6.7500e-003	4.6300e-003	5.0000e-005	1.6224	8.0000e-005	1.6225	0.1622	8.0000e-005	0.1623	0.0000	4.5482	4.5482	2.0000e-005	5.7000e-004	4.7199

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.3100e-003	0.0206	0.0815	1.7000e-004		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	14.8600	14.8600	4.1600e-003	0.0000	14.9639
Total	2.3100e-003	0.0206	0.0815	1.7000e-004		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	14.8600	14.8600	4.1600e-003	0.0000	14.9639

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Install Conduit Trench - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-005	3.8300e-003	9.8000e-004	2.0000e-005	0.1149	5.0000e-005	0.1149	0.0115	5.0000e-005	0.0116	0.0000	1.9800	1.9800	0.0000	3.1000e-004	2.0728
Vendor	8.0000e-005	2.6700e-003	8.0000e-004	2.0000e-005	0.1149	3.0000e-005	0.1149	0.0115	3.0000e-005	0.0116	0.0000	1.7892	1.7892	0.0000	2.4000e-004	1.8610
Worker	3.3000e-004	2.5000e-004	2.8500e-003	1.0000e-005	1.0100e-003	0.0000	1.0100e-003	2.7000e-004	0.0000	2.7000e-004	0.0000	0.7791	0.7791	2.0000e-005	2.0000e-005	0.7860
Total	4.9000e-004	6.7500e-003	4.6300e-003	5.0000e-005	0.2308	8.0000e-005	0.2309	0.0233	8.0000e-005	0.0234	0.0000	4.5482	4.5482	2.0000e-005	5.7000e-004	4.7199

3.5 OPGW LST Modifications - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0200	0.2168	0.1042	3.3000e-004		9.0500e-003	9.0500e-003		8.3300e-003	8.3300e-003	0.0000	28.8041	28.8041	9.3200e-003	0.0000	29.0370
Total	0.0200	0.2168	0.1042	3.3000e-004		9.0500e-003	9.0500e-003		8.3300e-003	8.3300e-003	0.0000	28.8041	28.8041	9.3200e-003	0.0000	29.0370

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 OPGW LST Modifications - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.5000e-004	0.0112	3.3400e-003	8.0000e-005	3.4051	1.5000e-004	3.4052	0.3401	1.4000e-004	0.3402	0.0000	7.5147	7.5147	2.0000e-005	1.0100e-003	7.8163
Worker	9.3000e-004	7.0000e-004	7.9700e-003	2.0000e-005	2.8200e-003	1.0000e-005	2.8400e-003	7.5000e-004	1.0000e-005	7.6000e-004	0.0000	2.1814	2.1814	6.0000e-005	6.0000e-005	2.2009
Total	1.2800e-003	0.0119	0.0113	1.0000e-004	3.4079	1.6000e-004	3.4080	0.3408	1.5000e-004	0.3410	0.0000	9.6961	9.6961	8.0000e-005	1.0700e-003	10.0172

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.0300e-003	0.0175	0.1477	3.3000e-004		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	28.8041	28.8041	9.3200e-003	0.0000	29.0370
Total	4.0300e-003	0.0175	0.1477	3.3000e-004		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	28.8041	28.8041	9.3200e-003	0.0000	29.0370

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 OPGW LST Modifications - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.5000e-004	0.0112	3.3400e-003	8.0000e-005	0.4826	1.5000e-004	0.4827	0.0484	1.4000e-004	0.0486	0.0000	7.5147	7.5147	2.0000e-005	1.0100e-003	7.8163
Worker	9.3000e-004	7.0000e-004	7.9700e-003	2.0000e-005	2.8200e-003	1.0000e-005	2.8400e-003	7.5000e-004	1.0000e-005	7.6000e-004	0.0000	2.1814	2.1814	6.0000e-005	6.0000e-005	2.2009
Total	1.2800e-003	0.0119	0.0113	1.0000e-004	0.4854	1.6000e-004	0.4855	0.0492	1.5000e-004	0.0493	0.0000	9.6961	9.6961	8.0000e-005	1.0700e-003	10.0172

3.6 Guard Structure Install/Removal - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.1300e-003	0.0774	0.0372	1.2000e-004		3.2300e-003	3.2300e-003		2.9700e-003	2.9700e-003	0.0000	10.2872	10.2872	3.3300e-003	0.0000	10.3704
Total	7.1300e-003	0.0774	0.0372	1.2000e-004		3.2300e-003	3.2300e-003		2.9700e-003	2.9700e-003	0.0000	10.2872	10.2872	3.3300e-003	0.0000	10.3704

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Guard Structure Install/Removal - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0000e-005	2.6700e-003	8.0000e-004	2.0000e-005	0.8107	3.0000e-005	0.8108	0.0810	3.0000e-005	0.0810	0.0000	1.7892	1.7892	0.0000	2.4000e-004	1.8610
Worker	2.2000e-004	1.7000e-004	1.9000e-003	1.0000e-005	6.7000e-004	0.0000	6.8000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5194	0.5194	1.0000e-005	1.0000e-005	0.5240
Total	3.0000e-004	2.8400e-003	2.7000e-003	3.0000e-005	0.8114	3.0000e-005	0.8114	0.0812	3.0000e-005	0.0812	0.0000	2.3086	2.3086	1.0000e-005	2.5000e-004	2.3851

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.4400e-003	6.2300e-003	0.0528	1.2000e-004		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	10.2872	10.2872	3.3300e-003	0.0000	10.3704
Total	1.4400e-003	6.2300e-003	0.0528	1.2000e-004		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	10.2872	10.2872	3.3300e-003	0.0000	10.3704

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Guard Structure Install/Removal - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0000e-005	2.6700e-003	8.0000e-004	2.0000e-005	0.1149	3.0000e-005	0.1149	0.0115	3.0000e-005	0.0116	0.0000	1.7892	1.7892	0.0000	2.4000e-004	1.8610
Worker	2.2000e-004	1.7000e-004	1.9000e-003	1.0000e-005	6.7000e-004	0.0000	6.8000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5194	0.5194	1.0000e-005	1.0000e-005	0.5240
Total	3.0000e-004	2.8400e-003	2.7000e-003	3.0000e-005	0.1156	3.0000e-005	0.1156	0.0117	3.0000e-005	0.0117	0.0000	2.3086	2.3086	1.0000e-005	2.5000e-004	2.3851

3.7 Remove Existing OHGW and Install OPGW - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1887	1.9965	1.1493	3.8100e-003		0.0809	0.0809		0.0744	0.0744	0.0000	334.3093	334.3093	0.1081	0.0000	337.0123
Total	0.1887	1.9965	1.1493	3.8100e-003		0.0809	0.0809		0.0744	0.0744	0.0000	334.3093	334.3093	0.1081	0.0000	337.0123

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Remove Existing OHGW and Install OPGW - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.1000e-004	0.0332	8.4500e-003	1.8000e-004	7.0260	4.6000e-004	7.0264	0.7016	4.4000e-004	0.7020	0.0000	17.1597	17.1597	3.0000e-005	2.7000e-003	17.9643
Vendor	4.3200e-003	0.1387	0.0414	9.8000e-004	42.1578	1.8200e-003	42.1596	4.2106	1.7400e-003	4.2123	0.0000	93.0386	93.0386	2.3000e-004	0.0125	96.7734
Worker	8.6700e-003	6.4600e-003	0.0740	2.2000e-004	0.0262	1.2000e-004	0.0263	6.9600e-003	1.1000e-004	7.0700e-003	0.0000	20.2562	20.2562	5.3000e-004	5.6000e-004	20.4370
Total	0.0137	0.1784	0.1239	1.3800e-003	49.2100	2.4000e-003	49.2124	4.9192	2.2900e-003	4.9214	0.0000	130.4544	130.4544	7.9000e-004	0.0158	135.1746

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0466	0.2019	1.7087	3.8100e-003		6.2100e-003	6.2100e-003		6.2100e-003	6.2100e-003	0.0000	334.3089	334.3089	0.1081	0.0000	337.0119
Total	0.0466	0.2019	1.7087	3.8100e-003		6.2100e-003	6.2100e-003		6.2100e-003	6.2100e-003	0.0000	334.3089	334.3089	0.1081	0.0000	337.0119

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Remove Existing OHGW and Install OPGW - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.1000e-004	0.0332	8.4500e-003	1.8000e-004	0.9954	4.6000e-004	0.9959	0.0997	4.4000e-004	0.1002	0.0000	17.1597	17.1597	3.0000e-005	2.7000e-003	17.9643
Vendor	4.3200e-003	0.1387	0.0414	9.8000e-004	5.9745	1.8200e-003	5.9763	0.5994	1.7400e-003	0.6012	0.0000	93.0386	93.0386	2.3000e-004	0.0125	96.7734
Worker	8.6700e-003	6.4600e-003	0.0740	2.2000e-004	0.0262	1.2000e-004	0.0263	6.9600e-003	1.1000e-004	7.0700e-003	0.0000	20.2562	20.2562	5.3000e-004	5.6000e-004	20.4370
Total	0.0137	0.1784	0.1239	1.3800e-003	6.9961	2.4000e-003	6.9985	0.7061	2.2900e-003	0.7084	0.0000	130.4544	130.4544	7.9000e-004	0.0158	135.1746

3.8 Install Underground Fiber Cable - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.6200e-003	0.0828	0.0398	1.3000e-004		3.4600e-003	3.4600e-003		3.1800e-003	3.1800e-003	0.0000	10.9966	10.9966	3.5600e-003	0.0000	11.0856
Total	7.6200e-003	0.0828	0.0398	1.3000e-004		3.4600e-003	3.4600e-003		3.1800e-003	3.1800e-003	0.0000	10.9966	10.9966	3.5600e-003	0.0000	11.0856

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.8 Install Underground Fiber Cable - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-005	3.8300e-003	9.8000e-004	2.0000e-005	0.8107	5.0000e-005	0.8107	0.0810	5.0000e-005	0.0810	0.0000	1.9800	1.9800	0.0000	3.1000e-004	2.0728
Vendor	4.0000e-005	1.3300e-003	4.0000e-004	1.0000e-005	0.4054	2.0000e-005	0.4054	0.0405	2.0000e-005	0.0405	0.0000	0.8946	0.8946	0.0000	1.2000e-004	0.9305
Worker	2.8000e-004	2.1000e-004	2.3700e-003	1.0000e-005	8.4000e-004	0.0000	8.4000e-004	2.2000e-004	0.0000	2.3000e-004	0.0000	0.6492	0.6492	2.0000e-005	2.0000e-005	0.6550
Total	4.0000e-004	5.3700e-003	3.7500e-003	4.0000e-005	1.2169	7.0000e-005	1.2170	0.1217	7.0000e-005	0.1217	0.0000	3.5238	3.5238	2.0000e-005	4.5000e-004	3.6583

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.5400e-003	6.6600e-003	0.0564	1.3000e-004		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	10.9966	10.9966	3.5600e-003	0.0000	11.0855
Total	1.5400e-003	6.6600e-003	0.0564	1.3000e-004		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	10.9966	10.9966	3.5600e-003	0.0000	11.0855

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.8 Install Underground Fiber Cable - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-005	3.8300e-003	9.8000e-004	2.0000e-005	0.1149	5.0000e-005	0.1149	0.0115	5.0000e-005	0.0116	0.0000	1.9800	1.9800	0.0000	3.1000e-004	2.0728
Vendor	4.0000e-005	1.3300e-003	4.0000e-004	1.0000e-005	0.0575	2.0000e-005	0.0575	5.7600e-003	2.0000e-005	5.7800e-003	0.0000	0.8946	0.8946	0.0000	1.2000e-004	0.9305
Worker	2.8000e-004	2.1000e-004	2.3700e-003	1.0000e-005	8.4000e-004	0.0000	8.4000e-004	2.2000e-004	0.0000	2.3000e-004	0.0000	0.6492	0.6492	2.0000e-005	2.0000e-005	0.6550
Total	4.0000e-004	5.3700e-003	3.7500e-003	4.0000e-005	0.1732	7.0000e-005	0.1732	0.0175	7.0000e-005	0.0176	0.0000	3.5238	3.5238	2.0000e-005	4.5000e-004	3.6583

3.9 Install Overhead Cable - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.5400e-003	0.0276	0.0133	4.0000e-005		1.1500e-003	1.1500e-003		1.0600e-003	1.0600e-003	0.0000	3.6656	3.6656	1.1900e-003	0.0000	3.6952
Total	2.5400e-003	0.0276	0.0133	4.0000e-005		1.1500e-003	1.1500e-003		1.0600e-003	1.0600e-003	0.0000	3.6656	3.6656	1.1900e-003	0.0000	3.6952

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.9 Install Overhead Cable - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-005	1.3300e-003	4.0000e-004	1.0000e-005	0.4054	2.0000e-005	0.4054	0.0405	2.0000e-005	0.0405	0.0000	0.8946	0.8946	0.0000	1.2000e-004	0.9305
Worker	9.0000e-005	7.0000e-005	7.9000e-004	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	8.0000e-005	0.0000	0.2164	0.2164	1.0000e-005	1.0000e-005	0.2183
Total	1.3000e-004	1.4000e-003	1.1900e-003	1.0000e-005	0.4056	2.0000e-005	0.4057	0.0406	2.0000e-005	0.0406	0.0000	1.1110	1.1110	1.0000e-005	1.3000e-004	1.1489

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.1000e-004	2.2200e-003	0.0188	4.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	3.6655	3.6655	1.1900e-003	0.0000	3.6952
Total	5.1000e-004	2.2200e-003	0.0188	4.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	3.6655	3.6655	1.1900e-003	0.0000	3.6952

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.9 Install Overhead Cable - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-005	1.3300e-003	4.0000e-004	1.0000e-005	0.0575	2.0000e-005	0.0575	5.7600e-003	2.0000e-005	5.7800e-003	0.0000	0.8946	0.8946	0.0000	1.2000e-004	0.9305
Worker	9.0000e-005	7.0000e-005	7.9000e-004	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	8.0000e-005	0.0000	0.2164	0.2164	1.0000e-005	1.0000e-005	0.2183
Total	1.3000e-004	1.4000e-003	1.1900e-003	1.0000e-005	0.0577	2.0000e-005	0.0577	5.8300e-003	2.0000e-005	5.8600e-003	0.0000	1.1110	1.1110	1.0000e-005	1.3000e-004	1.1489

3.10 Install Manholes - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8300e-003	0.0642	0.0565	1.5000e-004		2.6800e-003	2.6800e-003		2.5100e-003	2.5100e-003	0.0000	12.8786	12.8786	3.6000e-003	0.0000	12.9688
Total	6.8300e-003	0.0642	0.0565	1.5000e-004	0.0000	2.6800e-003	2.6800e-003	0.0000	2.5100e-003	2.5100e-003	0.0000	12.8786	12.8786	3.6000e-003	0.0000	12.9688

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.10 Install Manholes - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0000e-005	3.3200e-003	8.5000e-004	2.0000e-005	0.7026	5.0000e-005	0.7026	0.0702	4.0000e-005	0.0702	0.0000	1.7160	1.7160	0.0000	2.7000e-004	1.7964
Vendor	7.0000e-005	2.3100e-003	6.9000e-004	2.0000e-005	0.7026	3.0000e-005	0.7027	0.0702	3.0000e-005	0.0702	0.0000	1.5506	1.5506	0.0000	2.1000e-004	1.6129
Worker	2.9000e-004	2.2000e-004	2.4700e-003	1.0000e-005	8.7000e-004	0.0000	8.8000e-004	2.3000e-004	0.0000	2.4000e-004	0.0000	0.6752	0.6752	2.0000e-005	2.0000e-005	0.6812
Total	4.3000e-004	5.8500e-003	4.0100e-003	5.0000e-005	1.4061	8.0000e-005	1.4062	0.1406	7.0000e-005	0.1407	0.0000	3.9418	3.9418	2.0000e-005	5.0000e-004	4.0906

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0000e-003	0.0179	0.0706	1.5000e-004		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	12.8786	12.8786	3.6000e-003	0.0000	12.9687
Total	2.0000e-003	0.0179	0.0706	1.5000e-004	0.0000	2.3000e-004	2.3000e-004	0.0000	2.3000e-004	2.3000e-004	0.0000	12.8786	12.8786	3.6000e-003	0.0000	12.9687

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.10 Install Manholes - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0000e-005	3.3200e-003	8.5000e-004	2.0000e-005	0.0995	5.0000e-005	0.0996	9.9700e-003	4.0000e-005	0.0100	0.0000	1.7160	1.7160	0.0000	2.7000e-004	1.7964
Vendor	7.0000e-005	2.3100e-003	6.9000e-004	2.0000e-005	0.0996	3.0000e-005	0.0996	9.9900e-003	3.0000e-005	0.0100	0.0000	1.5506	1.5506	0.0000	2.1000e-004	1.6129
Worker	2.9000e-004	2.2000e-004	2.4700e-003	1.0000e-005	8.7000e-004	0.0000	8.8000e-004	2.3000e-004	0.0000	2.4000e-004	0.0000	0.6752	0.6752	2.0000e-005	2.0000e-005	0.6812
Total	4.3000e-004	5.8500e-003	4.0100e-003	5.0000e-005	0.2000	8.0000e-005	0.2001	0.0202	7.0000e-005	0.0203	0.0000	3.9418	3.9418	2.0000e-005	5.0000e-004	4.0906

3.11 Install Fiber Cable - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.7900e-003	0.0337	0.0295	1.1000e-004		1.3700e-003	1.3700e-003		1.2600e-003	1.2600e-003	0.0000	9.8584	9.8584	3.1900e-003	0.0000	9.9381
Total	4.7900e-003	0.0337	0.0295	1.1000e-004		1.3700e-003	1.3700e-003		1.2600e-003	1.2600e-003	0.0000	9.8584	9.8584	3.1900e-003	0.0000	9.9381

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.11 Install Fiber Cable - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-005	2.5600e-003	6.5000e-004	1.0000e-005	0.5405	4.0000e-005	0.5405	0.0540	3.0000e-005	0.0540	0.0000	1.3200	1.3200	0.0000	2.1000e-004	1.3819
Vendor	6.0000e-005	1.7800e-003	5.3000e-004	1.0000e-005	0.5405	2.0000e-005	0.5405	0.0540	2.0000e-005	0.0540	0.0000	1.1928	1.1928	0.0000	1.6000e-004	1.2407
Worker	2.2000e-004	1.7000e-004	1.9000e-003	1.0000e-005	6.7000e-004	0.0000	6.8000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5194	0.5194	1.0000e-005	1.0000e-005	0.5240
Total	3.3000e-004	4.5100e-003	3.0800e-003	3.0000e-005	1.0816	6.0000e-005	1.0817	0.1081	5.0000e-005	0.1082	0.0000	3.0322	3.0322	1.0000e-005	3.8000e-004	3.1466

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.3900e-003	6.0200e-003	0.0509	1.1000e-004		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	9.8584	9.8584	3.1900e-003	0.0000	9.9381
Total	1.3900e-003	6.0200e-003	0.0509	1.1000e-004		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	9.8584	9.8584	3.1900e-003	0.0000	9.9381

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.11 Install Fiber Cable - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-005	2.5600e-003	6.5000e-004	1.0000e-005	0.0766	4.0000e-005	0.0766	7.6700e-003	3.0000e-005	7.7100e-003	0.0000	1.3200	1.3200	0.0000	2.1000e-004	1.3819
Vendor	6.0000e-005	1.7800e-003	5.3000e-004	1.0000e-005	0.0766	2.0000e-005	0.0766	7.6800e-003	2.0000e-005	7.7100e-003	0.0000	1.1928	1.1928	0.0000	1.6000e-004	1.2407
Worker	2.2000e-004	1.7000e-004	1.9000e-003	1.0000e-005	6.7000e-004	0.0000	6.8000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5194	0.5194	1.0000e-005	1.0000e-005	0.5240
Total	3.3000e-004	4.5100e-003	3.0800e-003	3.0000e-005	0.1538	6.0000e-005	0.1539	0.0155	5.0000e-005	0.0156	0.0000	3.0322	3.0322	1.0000e-005	3.8000e-004	3.1466

3.12 Remove/Install New Distribution Poles - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5800e-003	0.0116	0.0126	6.0000e-005		3.5000e-004	3.5000e-004		3.2000e-004	3.2000e-004	0.0000	4.9028	4.9028	1.5900e-003	0.0000	4.9425
Total	1.5800e-003	0.0116	0.0126	6.0000e-005	0.0000	3.5000e-004	3.5000e-004	0.0000	3.2000e-004	3.2000e-004	0.0000	4.9028	4.9028	1.5900e-003	0.0000	4.9425

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.12 Remove/Install New Distribution Poles - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	6.4000e-004	1.6000e-004	0.0000	0.1351	1.0000e-005	0.1351	0.0135	1.0000e-005	0.0135	0.0000	0.3300	0.3300	0.0000	5.0000e-005	0.3455
Vendor	1.0000e-005	4.4000e-004	1.3000e-004	0.0000	0.1351	1.0000e-005	0.1351	0.0135	1.0000e-005	0.0135	0.0000	0.2982	0.2982	0.0000	4.0000e-005	0.3102
Worker	7.0000e-005	6.0000e-005	6.3000e-004	0.0000	2.2000e-004	0.0000	2.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1731	0.1731	0.0000	0.0000	0.1747
Total	9.0000e-005	1.1400e-003	9.2000e-004	0.0000	0.2705	2.0000e-005	0.2705	0.0271	2.0000e-005	0.0271	0.0000	0.8013	0.8013	0.0000	9.0000e-005	0.8303

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	2.9700e-003	0.0251	6.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	4.9028	4.9028	1.5900e-003	0.0000	4.9425
Total	6.8000e-004	2.9700e-003	0.0251	6.0000e-005	0.0000	9.0000e-005	9.0000e-005	0.0000	9.0000e-005	9.0000e-005	0.0000	4.9028	4.9028	1.5900e-003	0.0000	4.9425

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.12 Remove/Install New Distribution Poles - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	6.4000e-004	1.6000e-004	0.0000	0.0191	1.0000e-005	0.0192	1.9200e-003	1.0000e-005	1.9300e-003	0.0000	0.3300	0.3300	0.0000	5.0000e-005	0.3455
Vendor	1.0000e-005	4.4000e-004	1.3000e-004	0.0000	0.0192	1.0000e-005	0.0192	1.9200e-003	1.0000e-005	1.9300e-003	0.0000	0.2982	0.2982	0.0000	4.0000e-005	0.3102
Worker	7.0000e-005	6.0000e-005	6.3000e-004	0.0000	2.2000e-004	0.0000	2.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1731	0.1731	0.0000	0.0000	0.1747
Total	9.0000e-005	1.1400e-003	9.2000e-004	0.0000	0.0385	2.0000e-005	0.0385	3.9000e-003	2.0000e-005	3.9200e-003	0.0000	0.8013	0.8013	0.0000	9.0000e-005	0.8303

3.13 OPGW Cable Splicing - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0201	0.1415	0.1238	4.7000e-004		5.7300e-003	5.7300e-003		5.2800e-003	5.2800e-003	0.0000	41.4052	41.4052	0.0134	0.0000	41.7400
Total	0.0201	0.1415	0.1238	4.7000e-004		5.7300e-003	5.7300e-003		5.2800e-003	5.2800e-003	0.0000	41.4052	41.4052	0.0134	0.0000	41.7400

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.13 OPGW Cable Splicing - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3000e-004	0.0107	2.7300e-003	6.0000e-005	2.2699	1.5000e-004	2.2701	0.2267	1.4000e-004	0.2268	0.0000	5.5439	5.5439	1.0000e-005	8.7000e-004	5.8038
Vendor	2.3000e-004	7.4700e-003	2.2300e-003	5.0000e-005	2.2700	1.0000e-004	2.2701	0.2267	9.0000e-005	0.2268	0.0000	5.0098	5.0098	1.0000e-005	6.7000e-004	5.2109
Worker	9.3000e-004	7.0000e-004	7.9700e-003	2.0000e-005	2.8200e-003	1.0000e-005	2.8400e-003	7.5000e-004	1.0000e-005	7.6000e-004	0.0000	2.1814	2.1814	6.0000e-005	6.0000e-005	2.2009
Total	1.3900e-003	0.0189	0.0129	1.3000e-004	4.5428	2.6000e-004	4.5431	0.4541	2.4000e-004	0.4544	0.0000	12.7351	12.7351	8.0000e-005	1.6000e-003	13.2156

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.8300e-003	0.0253	0.2139	4.7000e-004		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004	0.0000	41.4051	41.4051	0.0134	0.0000	41.7399
Total	5.8300e-003	0.0253	0.2139	4.7000e-004		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004	0.0000	41.4051	41.4051	0.0134	0.0000	41.7399

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.13 OPGW Cable Splicing - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3000e-004	0.0107	2.7300e-003	6.0000e-005	0.3216	1.5000e-004	0.3218	0.0322	1.4000e-004	0.0324	0.0000	5.5439	5.5439	1.0000e-005	8.7000e-004	5.8038
Vendor	2.3000e-004	7.4700e-003	2.2300e-003	5.0000e-005	0.3217	1.0000e-004	0.3218	0.0323	9.0000e-005	0.0324	0.0000	5.0098	5.0098	1.0000e-005	6.7000e-004	5.2109
Worker	9.3000e-004	7.0000e-004	7.9700e-003	2.0000e-005	2.8200e-003	1.0000e-005	2.8400e-003	7.5000e-004	1.0000e-005	7.6000e-004	0.0000	2.1814	2.1814	6.0000e-005	6.0000e-005	2.2009
Total	1.3900e-003	0.0189	0.0129	1.3000e-004	0.6461	2.6000e-004	0.6464	0.0653	2.4000e-004	0.0655	0.0000	12.7351	12.7351	8.0000e-005	1.6000e-003	13.2156

3.14 OPGW Restoration - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0186	0.0000	0.0186	2.0000e-003	0.0000	2.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0299	0.3316	0.2481	5.6000e-004		0.0131	0.0131		0.0121	0.0121	0.0000	49.4312	49.4312	0.0160	0.0000	49.8308
Total	0.0299	0.3316	0.2481	5.6000e-004	0.0186	0.0131	0.0317	2.0000e-003	0.0121	0.0141	0.0000	49.4312	49.4312	0.0160	0.0000	49.8308

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.14 OPGW Restoration - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5000e-004	7.1600e-003	1.8200e-003	4.0000e-005	1.5133	1.0000e-004	1.5134	0.1511	9.0000e-005	0.1512	0.0000	3.6959	3.6959	1.0000e-005	5.8000e-004	3.8692
Vendor	4.7000e-004	0.0149	4.4600e-003	1.1000e-004	4.5401	2.0000e-004	4.5403	0.4535	1.9000e-004	0.4536	0.0000	10.0195	10.0195	2.0000e-005	1.3500e-003	10.4218
Worker	1.2500e-003	9.3000e-004	0.0106	3.0000e-005	3.7600e-003	2.0000e-005	3.7800e-003	1.0000e-003	2.0000e-005	1.0200e-003	0.0000	2.9086	2.9086	8.0000e-005	8.0000e-005	2.9345
Total	1.8700e-003	0.0230	0.0169	1.8000e-004	6.0571	3.2000e-004	6.0574	0.6056	3.0000e-004	0.6059	0.0000	16.6241	16.6241	1.1000e-004	2.0100e-003	17.2255

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.2400e-003	0.0000	7.2400e-003	7.8000e-004	0.0000	7.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.9200e-003	0.0300	0.3316	5.6000e-004		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	49.4311	49.4311	0.0160	0.0000	49.8308
Total	6.9200e-003	0.0300	0.3316	5.6000e-004	7.2400e-003	9.2000e-004	8.1600e-003	7.8000e-004	9.2000e-004	1.7000e-003	0.0000	49.4311	49.4311	0.0160	0.0000	49.8308

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.14 OPGW Restoration - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5000e-004	7.1600e-003	1.8200e-003	4.0000e-005	0.2144	1.0000e-004	0.2145	0.0215	9.0000e-005	0.0216	0.0000	3.6959	3.6959	1.0000e-005	5.8000e-004	3.8692
Vendor	4.7000e-004	0.0149	4.4600e-003	1.1000e-004	0.6434	2.0000e-004	0.6436	0.0646	1.9000e-004	0.0647	0.0000	10.0195	10.0195	2.0000e-005	1.3500e-003	10.4218
Worker	1.2500e-003	9.3000e-004	0.0106	3.0000e-005	3.7600e-003	2.0000e-005	3.7800e-003	1.0000e-003	2.0000e-005	1.0200e-003	0.0000	2.9086	2.9086	8.0000e-005	8.0000e-005	2.9345
Total	1.8700e-003	0.0230	0.0169	1.8000e-004	0.8616	3.2000e-004	0.8619	0.0870	3.0000e-004	0.0873	0.0000	16.6241	16.6241	1.1000e-004	2.0100e-003	17.2255

3.15 OPGW Splice Enclosure and Riser - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.5200e-003	0.0166	7.9600e-003	3.0000e-005		6.9000e-004	6.9000e-004		6.4000e-004	6.4000e-004	0.0000	2.1993	2.1993	7.1000e-004	0.0000	2.2171
Total	1.5200e-003	0.0166	7.9600e-003	3.0000e-005		6.9000e-004	6.9000e-004		6.4000e-004	6.4000e-004	0.0000	2.1993	2.1993	7.1000e-004	0.0000	2.2171

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.15 OPGW Splice Enclosure and Riser - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.7000e-004	2.0000e-004	0.0000	0.1621	1.0000e-005	0.1622	0.0162	1.0000e-005	0.0162	0.0000	0.3960	0.3960	0.0000	6.0000e-005	0.4146
Vendor	2.0000e-005	5.3000e-004	1.6000e-004	0.0000	0.1622	1.0000e-005	0.1622	0.0162	1.0000e-005	0.0162	0.0000	0.3578	0.3578	0.0000	5.0000e-005	0.3722
Worker	1.3000e-004	1.0000e-004	1.1400e-003	0.0000	4.0000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3116	0.3116	1.0000e-005	1.0000e-005	0.3144
Total	1.7000e-004	1.4000e-003	1.5000e-003	0.0000	0.3247	2.0000e-005	0.3247	0.0325	2.0000e-005	0.0325	0.0000	1.0655	1.0655	1.0000e-005	1.2000e-004	1.1012

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.1000e-004	1.3300e-003	0.0113	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.1993	2.1993	7.1000e-004	0.0000	2.2171
Total	3.1000e-004	1.3300e-003	0.0113	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.1993	2.1993	7.1000e-004	0.0000	2.2171

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.15 OPGW Splice Enclosure and Riser - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.7000e-004	2.0000e-004	0.0000	0.0230	1.0000e-005	0.0230	2.3000e-003	1.0000e-005	2.3100e-003	0.0000	0.3960	0.3960	0.0000	6.0000e-005	0.4146
Vendor	2.0000e-005	5.3000e-004	1.6000e-004	0.0000	0.0230	1.0000e-005	0.0230	2.3100e-003	1.0000e-005	2.3100e-003	0.0000	0.3578	0.3578	0.0000	5.0000e-005	0.3722
Worker	1.3000e-004	1.0000e-004	1.1400e-003	0.0000	4.0000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3116	0.3116	1.0000e-005	1.0000e-005	0.3144
Total	1.7000e-004	1.4000e-003	1.5000e-003	0.0000	0.0464	2.0000e-005	0.0464	4.7200e-003	2.0000e-005	4.7300e-003	0.0000	1.0655	1.0655	1.0000e-005	1.2000e-004	1.1012

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.530590	0.056931	0.174803	0.137616	0.029294	0.007692	0.006155	0.022126	0.000483	0.000158	0.027801	0.000928	0.005423

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6683	1.0000e-005	1.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.7600e-003	2.7600e-003	1.0000e-005	0.0000	2.9400e-003
Unmitigated	0.6683	1.0000e-005	1.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.7600e-003	2.7600e-003	1.0000e-005	0.0000	2.9400e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2337					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4345					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3000e-004	1.0000e-005	1.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.7600e-003	2.7600e-003	1.0000e-005	0.0000	2.9400e-003
Total	0.6683	1.0000e-005	1.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.7600e-003	2.7600e-003	1.0000e-005	0.0000	2.9400e-003

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2337					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4345					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3000e-004	1.0000e-005	1.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.7600e-003	2.7600e-003	1.0000e-005	0.0000	2.9400e-003
Total	0.6683	1.0000e-005	1.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.7600e-003	2.7600e-003	1.0000e-005	0.0000	2.9400e-003

7.0 Water Detail

7.1 Mitigation Measures Water

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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LVRAS Segment 2 Construction Activities - with APMs - Mojave Desert AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

LVRAS Segment 2 Unmitigated Daily Emissions for Helicopter - 2 Helicopters, 10 Hours per Day (lbs)							
	ROG	NO _x	CO	SO ₂	PM ₁₀ Total	PM _{2.5} Total	CO _{2e}
Daily (lbs)	28.00	255.88	199.88	19.14	31.14	30.86	56620.00
Annual (tons)	1.82	16.63	12.99	1.24	2.02	2.01	3680.30

Helicopter Exhaust Emission Rates

HELICOPTER EMISSIONS

Helicopter (T58-GE-5)							
Emission Rates (pounds/hour)							
HC	CO	NO _x	SO ₂	Total PM	PM10	PM2.5	CO ₂
1.400	9.994	12.794	0.957	1.595	1.557	1.543	2831.000

Emission Rates (grams/hour)							
HC	CO	NO _x	SO ₂	Total PM	PM10	PM2.5	CO ₂
635.026	4533.178	5803.230	434.086	723.476	706.113	699.758	1284113.290

Notes:

Two GE T58-S engines.

50% average power use resulting in 14.77 pounds per minute of fuel flow.

Criteria Pollutant Source - Procedures for Emission Inventory Preparation, Volume IV: Mobile Sources, EPA420-R-92-009, December 1992 (Table 5-7).

CO₂ Source - Energy Information Administration, Documentation for Emissions of Greenhouse Gases in the United States 2005, DOE/EIA-0638 (2005), October 2007, Tables 6-1, 6-2, 6-4, and 6-5.