

Appendix C

Air Quality, Energy, and GHG
Modeling Data

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Annual

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

Cordova Park 12 kV Underground Cable Replacement

Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.07	User Defined Unit	0.07	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6	Operational Year		2024	
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 12 kV = 0.07 acres

Construction Phase - Phase I would occur concurrently and continuously over a three week duration.

Off-road Equipment - Applicant approved equipment list

Off-road Equipment - Based on prior SMUD 69kV underground cable project equipment list

Off-road Equipment - Applicant approved equipment list

Off-road Equipment - Applicant approved equipment list

Trips and VMT - Default number of workers assumed for all activities; 2 trucks assumed for a material haul truck and water truck

Grading - CalEEMod estimated grading = 0.5 acres

Vehicle Trips - No operational emissions will be analyzed.

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Annual

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

Year	tons/yr										MT/yr					
2022	0.0311	0.3141	0.2187	4.5000e-004	0.0499	0.0143	0.0642	0.0269	0.0133	0.0402	0.0000	39.7918	39.7918	0.0106	2.9000e-004	40.1428
Maximum	0.0311	0.3141	0.2187	4.5000e-004	0.0499	0.0143	0.0642	0.0269	0.0133	0.0402	0.0000	39.7918	39.7918	0.0106	2.9000e-004	40.1428

Mitigated Construction

	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
Year	tons/yr										MT/yr					
2022	0.0311	0.3141	0.2187	4.5000e-004	0.0231	0.0143	0.0374	0.0123	0.0133	0.0256	0.0000	39.7918	39.7918	0.0106	2.9000e-004	40.1427
Maximum	0.0311	0.3141	0.2187	4.5000e-004	0.0231	0.0143	0.0374	0.0123	0.0133	0.0256	0.0000	39.7918	39.7918	0.0106	2.9000e-004	40.1427

	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	53.62	0.00	41.68	54.29	0.00	36.33	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2022	9-30-2022	0.3388	0.3388
		Highest	0.3388	0.3388

3.0 Construction Detail

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Annual

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

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2022	7/22/2022	5	16	
2	Trenching	Trenching	7/1/2022	7/22/2022	5	16	
3	Cable Laying/Vaulting	Building Construction	7/1/2022	7/22/2022	5	16	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Cable Laying/Vaulting	Cranes	1	7.00	231	0.29
Cable Laying/Vaulting	Forklifts	1	8.00	89	0.20
Cable Laying/Vaulting	Generator Sets	1	8.00	84	0.74
Cable Laying/Vaulting	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Trenching	Excavators	1	8.00	158	0.38
Trenching	Graders	1	8.00	187	0.41
Trenching	Rubber Tired Dozers	1	8.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Cable Laying/Vaulting	Welders	1	8.00	46	0.45

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, 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
Site Preparation	2	5.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Cable Laying/Vaulting	5	0.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	4	10.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2022

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					0.0484	0.0000	0.0484	0.0265	0.0000	0.0265	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.0100e-003	0.0838	0.0466	9.0000e-005	4.0600e-003	4.0600e-003	4.0600e-003	3.7400e-003	3.7400e-003	3.7400e-003	0.0000	8.1884	8.1884	2.6500e-003	0.0000	8.2546
Total	8.0100e-003	0.0838	0.0466	9.0000e-005	0.0484	4.0600e-003	0.0525	0.0265	3.7400e-003	0.0303	0.0000	8.1884	8.1884	2.6500e-003	0.0000	8.2546

Unmitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, 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					
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	7.0000e-005	1.8400e-003	5.3000e-004	1.0000e-005	1.9000e-004	2.0000e-005	2.0000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.6143	0.6143	2.0000e-005	9.0000e-005	0.6415
Worker	1.2000e-004	8.0000e-005	1.0100e-003	0.0000	2.9000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2419	0.2419	1.0000e-005	1.0000e-005	0.2443
Total	1.9000e-004	1.9200e-003	1.5400e-003	1.0000e-005	4.8000e-004	2.0000e-005	5.0000e-004	1.3000e-004	2.0000e-005	1.5000e-004	0.0000	0.8562	0.8562	3.0000e-005	1.0000e-004	0.8858

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					0.0218	0.0000	0.0218	0.0119	0.0000	0.0119	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.0100e-003	0.0838	0.0466	9.0000e-005		4.0600e-003	4.0600e-003		3.7400e-003	3.7400e-003	0.0000	8.1884	8.1884	2.6500e-003	0.0000	8.2546
Total	8.0100e-003	0.0838	0.0466	9.0000e-005	0.0218	4.0600e-003	0.0259	0.0119	3.7400e-003	0.0157	0.0000	8.1884	8.1884	2.6500e-003	0.0000	8.2546

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Annual

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

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	7.0000e-005	1.8400e-003	5.3000e-004	1.0000e-005	1.8000e-004	2.0000e-005	1.9000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.6143	0.6143	2.0000e-005	9.0000e-005	0.6415
Worker	1.2000e-004	8.0000e-005	1.0100e-003	0.0000	2.7000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2419	0.2419	1.0000e-005	1.0000e-005	0.2443
Total	1.9000e-004	1.9200e-003	1.5400e-003	1.0000e-005	4.5000e-004	2.0000e-005	4.6000e-004	1.2000e-004	2.0000e-005	1.4000e-004	0.0000	0.8562	0.8562	3.0000e-005	1.0000e-004	0.8858

3.3 Trenching - 2022

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	0.0130	0.1400	0.0864	1.9000e-004		6.0800e-003	6.0800e-003		5.6000e-003	5.6000e-003	0.0000	16.4713	16.4713	5.3300e-003	0.0000	16.6045
Total	0.0130	0.1400	0.0864	1.9000e-004		6.0800e-003	6.0800e-003		5.6000e-003	5.6000e-003	0.0000	16.4713	16.4713	5.3300e-003	0.0000	16.6045

Unmitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, 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					
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	7.0000e-005	1.8400e-003	5.3000e-004	1.0000e-005	1.9000e-004	2.0000e-005	2.0000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.6143	0.6143	2.0000e-005	9.0000e-005	0.6415
Worker	2.5000e-004	1.6000e-004	2.0200e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4838	0.4838	2.0000e-005	1.0000e-005	0.4886
Total	3.2000e-004	2.0000e-003	2.5500e-003	2.0000e-005	7.8000e-004	2.0000e-005	7.9000e-004	2.1000e-004	2.0000e-005	2.3000e-004	0.0000	1.0981	1.0981	4.0000e-005	1.0000e-004	1.1301

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	0.0130	0.1400	0.0864	1.9000e-004		6.0800e-003	6.0800e-003		5.6000e-003	5.6000e-003	0.0000	16.4713	16.4713	5.3300e-003	0.0000	16.6045
Total	0.0130	0.1400	0.0864	1.9000e-004		6.0800e-003	6.0800e-003		5.6000e-003	5.6000e-003	0.0000	16.4713	16.4713	5.3300e-003	0.0000	16.6045

Mitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, 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					
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	7.0000e-005	1.8400e-003	5.3000e-004	1.0000e-005	1.8000e-004	2.0000e-005	1.9000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.6143	0.6143	2.0000e-005	9.0000e-005	0.6415
Worker	2.5000e-004	1.6000e-004	2.0200e-003	1.0000e-005	5.4000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4838	0.4838	2.0000e-005	1.0000e-005	0.4886
Total	3.2000e-004	2.0000e-003	2.5500e-003	2.0000e-005	7.2000e-004	2.0000e-005	7.4000e-004	2.0000e-004	2.0000e-005	2.2000e-004	0.0000	1.0981	1.0981	4.0000e-005	1.0000e-004	1.1301

3.4 Cable Laying/Vaulting - 2022

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	9.5300e-003	0.0846	0.0811	1.5000e-004		4.0900e-003	4.0900e-003		3.9000e-003	3.9000e-003	0.0000	12.5635	12.5635	2.5100e-003	0.0000	12.6262
Total	9.5300e-003	0.0846	0.0811	1.5000e-004		4.0900e-003	4.0900e-003		3.9000e-003	3.9000e-003	0.0000	12.5635	12.5635	2.5100e-003	0.0000	12.6262

Unmitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, 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					
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	7.0000e-005	1.8400e-003	5.3000e-004	1.0000e-005	1.9000e-004	2.0000e-005	2.0000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.6143	0.6143	2.0000e-005	9.0000e-005	0.6415
Worker	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
Total	7.0000e-005	1.8400e-003	5.3000e-004	1.0000e-005	1.9000e-004	2.0000e-005	2.0000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.6143	0.6143	2.0000e-005	9.0000e-005	0.6415

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	9.5300e-003	0.0846	0.0811	1.5000e-004		4.0900e-003	4.0900e-003		3.9000e-003	3.9000e-003	0.0000	12.5634	12.5634	2.5100e-003	0.0000	12.6262
Total	9.5300e-003	0.0846	0.0811	1.5000e-004		4.0900e-003	4.0900e-003		3.9000e-003	3.9000e-003	0.0000	12.5634	12.5634	2.5100e-003	0.0000	12.6262

Mitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, 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					
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	7.0000e-005	1.8400e-003	5.3000e-004	1.0000e-005	1.8000e-004	2.0000e-005	1.9000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.6143	0.6143	2.0000e-005	9.0000e-005	0.6415
Worker	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
Total	7.0000e-005	1.8400e-003	5.3000e-004	1.0000e-005	1.8000e-004	2.0000e-005	1.9000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.6143	0.6143	2.0000e-005	9.0000e-005	0.6415

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Summer

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

**Cordova Park 12 kV Underground Cable Replacement
Sacramento County, Summer**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.07	User Defined Unit	0.07	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 12 kV = 0.07 acres

Construction Phase - Phase I would occur concurrently and continuously over a three week duration.

Off-road Equipment - Applicant approved equipment list

Off-road Equipment - Based on prior SMUD 69kV underground cable project equipment list

Off-road Equipment - Applicant approved equipment list

Off-road Equipment - Applicant approved equipment list

Trips and VMT - Default number of workers assumed for all activities; 2 trucks assumed for a material haul truck and water truck

Grading - CalEEMod estimated grading = 0.5 acres

Vehicle Trips - No operational emissions will be analyzed.

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Summer

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

Year	lb/day										lb/day					
2022	3.8921	39.2277	27.3967	0.0570	6.2416	1.7866	8.0283	3.3649	1.6608	5.0257	0.0000	5,492.5023	5,492.5023	1.4545	0.0400	5,540.7915
Maximum	3.8921	39.2277	27.3967	0.0570	6.2416	1.7866	8.0283	3.3649	1.6608	5.0257	0.0000	5,492.5023	5,492.5023	1.4545	0.0400	5,540.7915

Mitigated Construction

	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
Year	lb/day										lb/day					
2022	3.8921	39.2277	27.3967	0.0570	2.8977	1.7866	4.6843	1.5390	1.6608	3.1997	0.0000	5,492.5023	5,492.5023	1.4545	0.0400	5,540.7915
Maximum	3.8921	39.2277	27.3967	0.0570	2.8977	1.7866	4.6843	1.5390	1.6608	3.1997	0.0000	5,492.5023	5,492.5023	1.4545	0.0400	5,540.7915

	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	53.57	0.00	41.65	54.26	0.00	36.33	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
--------------	------------	------------	------------	----------	---------------	----------	-------------------

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Summer

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

1	Site Preparation	Site Preparation	7/1/2022	7/22/2022	5	16
2	Trenching	Trenching	7/1/2022	7/22/2022	5	16
3	Cable Laying/Vaulting	Building Construction	7/1/2022	7/22/2022	5	16

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Cable Laying/Vaulting	Cranes	1	7.00	231	0.29
Cable Laying/Vaulting	Forklifts	1	8.00	89	0.20
Cable Laying/Vaulting	Generator Sets	1	8.00	84	0.74
Cable Laying/Vaulting	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Trenching	Excavators	1	8.00	156	0.38
Trenching	Graders	1	8.00	187	0.41
Trenching	Rubber Tired Dozers	1	8.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Cable Laying/Vaulting	Welders	1	8.00	46	0.45

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
------------	-------------------------	--------------------	--------------------	---------------------	--------------------	--------------------	---------------------	----------------------	----------------------	-----------------------

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Summer

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

Site Preparation	2	5.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Cable Laying/Vaulting	5	0.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	4	10.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2022

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	lb/day										lb/day					
Fugitive Dust					6.0552	0.0000	6.0552	3.3138	0.0000	3.3138			0.0000			0.0000
Off-Road	1.0018	10.4693	5.8199	0.0116		0.5075	0.5075		0.4669	0.4669		1,128.2743	1,128.2743	0.3649		1,137.3970
Total	1.0018	10.4693	5.8199	0.0116	6.0552	0.5075	6.5627	3.3138	0.4669	3.7807		1,128.2743	1,128.2743	0.3649		1,137.3970

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
--	-----	-----	----	-----	---------------	--------------	------------	----------------	---------------	-------------	----------	-----------	-----------	-----	-----	------

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Summer

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

Category	lb/day										lb/day					
	PM10	PM2.5	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
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	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0241	2.1200e-003	0.0262	6.9400e-003	2.0200e-003	8.9600e-003	84.6477	84.6477	2.2100e-003	0.0124	88.3970	
Worker	0.0181	9.1500e-003	0.1479	3.6000e-004	0.0380	2.1000e-004	0.0382	0.0101	1.9000e-004	0.0103	36.5376	36.5376	1.0800e-003	9.4000e-004	36.8461	
Total	0.0268	0.2270	0.2135	1.1500e-003	0.0621	2.3300e-003	0.0645	0.0170	2.2100e-003	0.0192	121.1852	121.1852	3.2900e-003	0.0133	125.2431	

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	lb/day										lb/day					
Fugitive Dust					2.7249	0.0000	2.7249	1.4912	0.0000	1.4912			0.0000			0.0000
Off-Road	1.0018	10.4693	5.8199	0.0116		0.5075	0.5075		0.4669	0.4669	0.0000	1,128.2743	1,128.2743	0.3649		1,137.3970
Total	1.0018	10.4693	5.8199	0.0116	2.7249	0.5075	3.2323	1.4912	0.4669	1.9581	0.0000	1,128.2743	1,128.2743	0.3649		1,137.3970

Mitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Summer

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0226	2.1200e-003	0.0247	6.5600e-003	2.0200e-003	8.5800e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	0.0181	9.1500e-003	0.1479	3.6000e-004	0.0351	2.1000e-004	0.0353	9.3600e-003	1.9000e-004	9.5500e-003		36.5376	36.5376	1.0800e-003	9.4000e-004	36.8461
Total	0.0268	0.2270	0.2135	1.1500e-003	0.0576	2.3300e-003	0.0599	0.0159	2.2100e-003	0.0181		121.1852	121.1852	3.2900e-003	0.0133	125.2431

3.3 Trenching - 2022

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	lb/day										lb/day					
Off-Road	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998		2,269.5685	2,269.5685	0.7340		2,287.9191
Total	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998		2,269.5685	2,269.5685	0.7340		2,287.9191

Unmitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Summer

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0241	2.1200e-003	0.0262	6.9400e-003	2.0200e-003	8.9600e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	0.0362	0.0183	0.2958	7.2000e-004	0.0761	4.1000e-004	0.0765	0.0202	3.8000e-004	0.0206		73.0752	73.0752	2.1700e-003	1.8900e-003	73.6921
Total	0.0449	0.2362	0.3614	1.5100e-003	0.1002	2.5300e-003	0.1027	0.0271	2.4000e-003	0.0295		157.7228	157.7228	4.3800e-003	0.0143	162.0891

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	lb/day										lb/day					
Off-Road	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998	0.0000	2,269.5685	2,269.5685	0.7340		2,287.9191
Total	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998	0.0000	2,269.5685	2,269.5685	0.7340		2,287.9191

Mitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Summer

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0226	2.1200e-003	0.0247	6.5600e-003	2.0200e-003	8.5800e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	0.0362	0.0183	0.2958	7.2000e-004	0.0701	4.1000e-004	0.0705	0.0187	3.8000e-004	0.0191		73.0752	73.0752	2.1700e-003	1.8900e-003	73.6921
Total	0.0449	0.2362	0.3614	1.5100e-003	0.0927	2.5300e-003	0.0952	0.0253	2.4000e-003	0.0277		157.7228	157.7228	4.3800e-003	0.0143	162.0891

3.4 Cable Laying/Vaulting - 2022

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	lb/day										lb/day					
Off-Road	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875		1,731.1038	1,731.1038	0.3457		1,739.7462
Total	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875		1,731.1038	1,731.1038	0.3457		1,739.7462

Unmitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Summer

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0241	2.1200e-003	0.0262	6.9400e-003	2.0200e-003	8.9600e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	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
Total	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0241	2.1200e-003	0.0262	6.9400e-003	2.0200e-003	8.9600e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970

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	lb/day										lb/day					
Off-Road	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875	0.0000	1,731.1038	1,731.1038	0.3457		1,739.7462
Total	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875	0.0000	1,731.1038	1,731.1038	0.3457		1,739.7462

Mitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Summer

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0226	2.1200e-003	0.0247	6.5600e-003	2.0200e-003	8.5800e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	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
Total	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0226	2.1200e-003	0.0247	6.5600e-003	2.0200e-003	8.5800e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Winter

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

Cordova Park 12 kV Underground Cable Replacement

Sacramento County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.07	User Defined Unit	0.07	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 12 kV = 0.07 acres

Construction Phase - Phase I would occur concurrently and continuously over a three week duration.

Off-road Equipment - Applicant approved equipment list

Off-road Equipment - Based on prior SMUD 69kV underground cable project equipment list

Off-road Equipment - Applicant approved equipment list

Off-road Equipment - Applicant approved equipment list

Trips and VMT - Default number of workers assumed for all activities; 2 trucks assumed for a material haul truck and water truck

Grading - CalEEMod estimated grading = 0.5 acres

Vehicle Trips - No operational emissions will be analyzed.

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Winter

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

Year	lb/day										lb/day					
2022	3.8854	39.2824	27.3461	0.0568	6.2416	1.7867	8.0283	3.3649	1.6608	5.0257	0.0000	5,480.3270	5,480.3270	1.4550	0.0405	5,528.7704
Maximum	3.8854	39.2824	27.3461	0.0568	6.2416	1.7867	8.0283	3.3649	1.6608	5.0257	0.0000	5,480.3270	5,480.3270	1.4550	0.0405	5,528.7704

Mitigated Construction

	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
Year	lb/day										lb/day					
2022	3.8854	39.2824	27.3461	0.0568	2.8977	1.7867	4.6844	1.5390	1.6608	3.1998	0.0000	5,480.3270	5,480.3270	1.4550	0.0405	5,528.7704
Maximum	3.8854	39.2824	27.3461	0.0568	2.8977	1.7867	4.6844	1.5390	1.6608	3.1998	0.0000	5,480.3270	5,480.3270	1.4550	0.0405	5,528.7704

	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	53.57	0.00	41.65	54.26	0.00	36.33	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
--------------	------------	------------	------------	----------	---------------	----------	-------------------

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Winter

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

1	Site Preparation	Site Preparation	7/1/2022	7/22/2022	5	16
2	Trenching	Trenching	7/1/2022	7/22/2022	5	16
3	Cable Laying/Vaulting	Building Construction	7/1/2022	7/22/2022	5	16

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Cable Laying/Vaulting	Cranes	1	7.00	231	0.29
Cable Laying/Vaulting	Forklifts	1	8.00	89	0.20
Cable Laying/Vaulting	Generator Sets	1	8.00	84	0.74
Cable Laying/Vaulting	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Trenching	Excavators	1	8.00	156	0.38
Trenching	Graders	1	8.00	187	0.41
Trenching	Rubber Tired Dozers	1	8.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Cable Laying/Vaulting	Welders	1	8.00	46	0.45

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
------------	-------------------------	--------------------	--------------------	---------------------	--------------------	--------------------	---------------------	----------------------	----------------------	-----------------------

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Winter

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

Site Preparation	2	5.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Cable Laying/Vaulting	5	0.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	4	10.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2022

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	lb/day										lb/day					
Fugitive Dust					6.0552	0.0000	6.0552	3.3138	0.0000	3.3138			0.0000			0.0000
Off-Road	1.0018	10.4693	5.8199	0.0116		0.5075	0.5075		0.4669	0.4669		1,128.2743	1,128.2743	0.3649		1,137.3970
Total	1.0018	10.4693	5.8199	0.0116	6.0552	0.5075	6.5627	3.3138	0.4669	3.7807		1,128.2743	1,128.2743	0.3649		1,137.3970

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
--	-----	-----	----	-----	---------------	--------------	------------	----------------	---------------	-------------	----------	-----------	-----------	-----	-----	------

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Winter

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

Category	lb/day										lb/day					
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	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0241	2.1300e-003	0.0262	6.9400e-003	2.0400e-003	8.9800e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	0.0160	0.0112	0.1281	3.2000e-004	0.0380	2.1000e-004	0.0382	0.0101	1.9000e-004	0.0103		32.4890	32.4890	1.2400e-003	1.0800e-003	32.8430
Total	0.0245	0.2453	0.1966	1.1100e-003	0.0621	2.3400e-003	0.0645	0.0170	2.2300e-003	0.0193		117.1268	117.1268	3.4400e-003	0.0135	121.2361

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	lb/day										lb/day					
Fugitive Dust					2.7249	0.0000	2.7249	1.4912	0.0000	1.4912			0.0000			0.0000
Off-Road	1.0018	10.4693	5.8199	0.0116		0.5075	0.5075		0.4669	0.4669	0.0000	1,128.2743	1,128.2743	0.3649		1,137.3970
Total	1.0018	10.4693	5.8199	0.0116	2.7249	0.5075	3.2323	1.4912	0.4669	1.9581	0.0000	1,128.2743	1,128.2743	0.3649		1,137.3970

Mitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Winter

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0226	2.1300e-003	0.0247	6.5600e-003	2.0400e-003	8.6000e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	0.0160	0.0112	0.1281	3.2000e-004	0.0351	2.1000e-004	0.0353	9.3600e-003	1.9000e-004	9.5500e-003		32.4890	32.4890	1.2400e-003	1.0800e-003	32.8430
Total	0.0245	0.2453	0.1966	1.1100e-003	0.0576	2.3400e-003	0.0600	0.0159	2.2300e-003	0.0182		117.1268	117.1268	3.4400e-003	0.0135	121.2361

3.3 Trenching - 2022

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	lb/day										lb/day					
Off-Road	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998		2,269.5685	2,269.5685	0.7340		2,287.9191
Total	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998		2,269.5685	2,269.5685	0.7340		2,287.9191

Unmitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Winter

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0241	2.1300e-003	0.0262	6.9400e-003	2.0400e-003	8.9800e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	0.0320	0.0225	0.2562	6.4000e-004	0.0761	4.1000e-004	0.0765	0.0202	3.8000e-004	0.0206		64.9780	64.9780	2.4800e-003	2.1700e-003	65.6860
Total	0.0405	0.2565	0.3247	1.4300e-003	0.1002	2.5400e-003	0.1027	0.0271	2.4200e-003	0.0295		149.6158	149.6158	4.6800e-003	0.0146	154.0791

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	lb/day										lb/day					
Off-Road	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998	0.0000	2,269.5685	2,269.5685	0.7340		2,287.9191
Total	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998	0.0000	2,269.5685	2,269.5685	0.7340		2,287.9191

Mitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Winter

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0226	2.1300e-003	0.0247	6.5600e-003	2.0400e-003	8.6000e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	0.0320	0.0225	0.2562	6.4000e-004	0.0701	4.1000e-004	0.0705	0.0187	3.8000e-004	0.0191		64.9780	64.9780	2.4800e-003	2.1700e-003	65.6860
Total	0.0405	0.2565	0.3247	1.4300e-003	0.0927	2.5400e-003	0.0952	0.0253	2.4200e-003	0.0277		149.6158	149.6158	4.6800e-003	0.0146	154.0791

3.4 Cable Laying/Vaulting - 2022

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	lb/day										lb/day					
Off-Road	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875		1,731.1038	1,731.1038	0.3457		1,739.7462
Total	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875		1,731.1038	1,731.1038	0.3457		1,739.7462

Unmitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Winter

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0241	2.1300e-003	0.0262	6.9400e-003	2.0400e-003	8.9800e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	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
Total	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0241	2.1300e-003	0.0262	6.9400e-003	2.0400e-003	8.9800e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931

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	lb/day										lb/day					
Off-Road	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875	0.0000	1,731.1038	1,731.1038	0.3457		1,739.7462
Total	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875	0.0000	1,731.1038	1,731.1038	0.3457		1,739.7462

Mitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Winter

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0226	2.1300e-003	0.0247	6.5600e-003	2.0400e-003	8.6000e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	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
Total	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0226	2.1300e-003	0.0247	6.5600e-003	2.0400e-003	8.6000e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Annual

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

Cordova Park 12 kV Underground Cable Replacement - Paving

Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.07	User Defined Unit	0.07	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 12 kv = 0.07 acres

Construction Phase - Phase I would occur concurrently and continuously over a three week duration.

Off-road Equipment - Applicant approved equipment list

Trips and VMT - Default number of workers assumed for all activities; 2 trucks assumed for a material haul truck and water truck

Construction Off-road Equipment Mitigation - SMAQMD Basic Construction Emissions Controls Practices (BMPs).

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	16.00

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Annual

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

tblLandUse	LotAcreage	0.00	0.07
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	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
Year	tons/yr										MT/yr					
2022	6.4700e-003	0.0622	0.0812	1.3000e-004	9.5000e-004	3.1000e-003	4.0500e-003	2.6000e-004	2.8600e-003	3.1200e-003	0.0000	11.7155	11.7155	3.3600e-003	1.1000e-004	11.8321
Maximum	6.4700e-003	0.0622	0.0812	1.3000e-004	9.5000e-004	3.1000e-003	4.0500e-003	2.6000e-004	2.8600e-003	3.1200e-003	0.0000	11.7155	11.7155	3.3600e-003	1.1000e-004	11.8321

Mitigated Construction

	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
Year	tons/yr										MT/yr					

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Annual

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

2022	6.4700e-003	0.0622	0.0812	1.3000e-004	8.8000e-004	3.1000e-003	3.9800e-003	2.4000e-004	2.8600e-003	3.1000e-003	0.0000	11.7155	11.7155	3.3600e-003	1.1000e-004	11.8321
Maximum	6.4700e-003	0.0622	0.0812	1.3000e-004	8.8000e-004	3.1000e-003	3.9800e-003	2.4000e-004	2.8600e-003	3.1000e-003	0.0000	11.7155	11.7155	3.3600e-003	1.1000e-004	11.8321

	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	7.37	0.00	1.73	7.69	0.00	0.64	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2022	9-30-2022	0.0674	0.0674
		Highest	0.0674	0.0674

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Paving	Paving	7/1/2022	7/22/2022	5	16	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Cement and Mortar Mixers	1	6.00	9	0.56

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Annual

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

Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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
Paving	5	13.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Paving - 2022

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	6.0800e-003	0.0601	0.0781	1.2000e-004		3.0800e-003	3.0800e-003		2.8400e-003	2.8400e-003	0.0000	10.4722	10.4722	3.3300e-003	0.0000	10.5554
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.0800e-003	0.0601	0.0781	1.2000e-004		3.0800e-003	3.0800e-003		2.8400e-003	2.8400e-003	0.0000	10.4722	10.4722	3.3300e-003	0.0000	10.5554

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Annual

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

Total	6.0800e-003	0.0601	0.0781	1.2000e-004		3.0800e-003	3.0800e-003		2.8400e-003	2.8400e-003	0.0000	10.4722	10.4722	3.3300e-003	0.0000	10.5554
-------	-------------	--------	--------	-------------	--	-------------	-------------	--	-------------	-------------	--------	---------	---------	-------------	--------	---------

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	7.0000e-005	1.8400e-003	5.3000e-004	1.0000e-005	1.8000e-004	2.0000e-005	1.9000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.6143	0.6143	2.0000e-005	9.0000e-005	0.6415
Worker	3.2000e-004	2.1000e-004	2.6200e-003	1.0000e-005	7.0000e-004	0.0000	7.1000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6290	0.6290	2.0000e-005	2.0000e-005	0.6351
Total	3.9000e-004	2.0500e-003	3.1500e-003	2.0000e-005	8.8000e-004	2.0000e-005	9.0000e-004	2.4000e-004	2.0000e-005	2.6000e-004	0.0000	1.2433	1.2433	4.0000e-005	1.1000e-004	1.2767

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Summer

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

**Cordova Park 12 kV Underground Cable Replacement - Paving
Sacramento County, Summer**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.07	User Defined Unit	0.07	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 12 kv = 0.07 acres

Construction Phase - Phase I would occur concurrently and continuously over a three week duration.

Off-road Equipment - Applicant approved equipment list

Trips and VMT - Default number of workers assumed for all activities; 2 trucks assumed for a material haul truck and water truck

Construction Off-road Equipment Mitigation - SMAQMD Basic Construction Emissions Controls Practices (BMPs).

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	16.00

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Summer

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

tblLandUse	LotAcreage	0.00	0.07
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	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
Year	lb/day										lb/day					
2022	0.8159	7.7559	10.2096	0.0168	0.1230	0.3875	0.5105	0.0332	0.3574	0.3906	0.0000	1,622.6017	1,622.6017	0.4634	0.0149	1,638.6121
Maximum	0.8159	7.7559	10.2096	0.0168	0.1230	0.3875	0.5105	0.0332	0.3574	0.3906	0.0000	1,622.6017	1,622.6017	0.4634	0.0149	1,638.6121

Mitigated Construction

	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
Year	lb/day										lb/day					

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Summer

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

2022	0.8159	7.7559	10.2096	0.0168	0.1137	0.3875	0.5012	0.0309	0.3574	0.3883	0.0000	1,622.6017	1,622.6017	0.4634	0.0149	1,638.6121
Maximum	0.8159	7.7559	10.2096	0.0168	0.1137	0.3875	0.5012	0.0309	0.3574	0.3883	0.0000	1,622.6017	1,622.6017	0.4634	0.0149	1,638.6121

	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	7.54	0.00	1.82	6.87	0.00	0.58	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	Paving	Paving	7/1/2022	7/22/2022	5	16	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	8.00	80	0.38

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Summer

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

Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
--------	---------------------------	---	------	----	------

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
Paving	5	13.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Paving - 2022

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	lb/day										lb/day					
Off-Road	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549		1,442.9563	1,442.9563	0.4584		1,454.4154
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549		1,442.9563	1,442.9563	0.4584		1,454.4154

Unmitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Summer

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0241	2.1200e-003	0.0262	6.9400e-003	2.0200e-003	8.9600e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	0.0471	0.0238	0.3845	9.3000e-004	0.0989	5.4000e-004	0.0994	0.0262	4.9000e-004	0.0267		94.9977	94.9977	2.8200e-003	2.4500e-003	95.7998
Total	0.0558	0.2417	0.4501	1.7200e-003	0.1230	2.6600e-003	0.1257	0.0332	2.5100e-003	0.0357		179.6454	179.6454	5.0300e-003	0.0149	184.1968

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	lb/day										lb/day					
Off-Road	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549	0.0000	1,442.9563	1,442.9563	0.4584		1,454.4154
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549	0.0000	1,442.9563	1,442.9563	0.4584		1,454.4154

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Summer

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

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0226	2.1200e-003	0.0247	6.5600e-003	2.0200e-003	8.5800e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	0.0471	0.0238	0.3845	9.3000e-004	0.0912	5.4000e-004	0.0917	0.0243	4.9000e-004	0.0248		94.9977	94.9977	2.8200e-003	2.4500e-003	95.7998
Total	0.0558	0.2417	0.4501	1.7200e-003	0.1137	2.6600e-003	0.1164	0.0309	2.5100e-003	0.0334		179.6454	179.6454	5.0300e-003	0.0149	184.1968

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Winter

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

Cordova Park 12 kV Underground Cable Replacement - Paving

Sacramento County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.07	User Defined Unit	0.07	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 12 kv = 0.07 acres

Construction Phase - Phase I would occur concurrently and continuously over a three week duration.

Off-road Equipment - Applicant approved equipment list

Trips and VMT - Default number of workers assumed for all activities; 2 trucks assumed for a material haul truck and water truck

Construction Off-road Equipment Mitigation - SMAQMD Basic Construction Emissions Controls Practices (BMPs).

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	16.00

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Winter

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

tblLandUse	LotAcreage	0.00	0.07
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	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
Year	lb/day										lb/day					
2022	0.8103	7.7774	10.1611	0.0167	0.1230	0.3875	0.5105	0.0332	0.3574	0.3906	0.0000	1,612.0656	1,612.0656	0.4638	0.0152	1,628.2002
Maximum	0.8103	7.7774	10.1611	0.0167	0.1230	0.3875	0.5105	0.0332	0.3574	0.3906	0.0000	1,612.0656	1,612.0656	0.4638	0.0152	1,628.2002

Mitigated Construction

	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
Year	lb/day										lb/day					

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Winter

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

2022	0.8103	7.7774	10.1611	0.0167	0.1137	0.3875	0.5012	0.0309	0.3574	0.3883	0.0000	1,612.0656	1,612.0656	0.4638	0.0152	1,628.2002
Maximum	0.8103	7.7774	10.1611	0.0167	0.1137	0.3875	0.5012	0.0309	0.3574	0.3883	0.0000	1,612.0656	1,612.0656	0.4638	0.0152	1,628.2002

	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	7.54	0.00	1.82	6.87	0.00	0.58	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	Paving	Paving	7/1/2022	7/22/2022	5	16	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Winter

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

Paving	Rollers	1	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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
Paving	5	13.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Paving - 2022

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	lb/day										lb/day					
Off-Road	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549		1,442.9563	1,442.9563	0.4584		1,454.4154
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549		1,442.9563	1,442.9563	0.4584		1,454.4154

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Winter

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

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0241	2.1300e-003	0.0262	6.9400e-003	2.0400e-003	8.9800e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	0.0416	0.0292	0.3331	8.3000e-004	0.0989	5.4000e-004	0.0994	0.0262	4.9000e-004	0.0267		84.4715	84.4715	3.2300e-003	2.8200e-003	85.3918
Total	0.0501	0.2632	0.4016	1.6200e-003	0.1230	2.6700e-003	0.1257	0.0332	2.5300e-003	0.0357		169.1092	169.1092	5.4300e-003	0.0152	173.7848

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	lb/day										lb/day					
Off-Road	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549	0.0000	1,442.9563	1,442.9563	0.4584		1,454.4154
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549	0.0000	1,442.9563	1,442.9563	0.4584		1,454.4154

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Winter

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

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0226	2.1300e-003	0.0247	6.5600e-003	2.0400e-003	8.6000e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	0.0416	0.0292	0.3331	8.3000e-004	0.0912	5.4000e-004	0.0917	0.0243	4.9000e-004	0.0248		84.4715	84.4715	3.2300e-003	2.8200e-003	85.3918
Total	0.0501	0.2632	0.4016	1.6200e-003	0.1137	2.6700e-003	0.1164	0.0309	2.5300e-003	0.0334		169.1092	169.1092	5.4300e-003	0.0152	173.7848

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Annual

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

Cordova Park 69 kV Underground Cable Replacement

Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	19.01	User Defined Unit	19.01	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 69 kV = 19.01 acres

Construction Phase - 12 month construction schedule

Off-road Equipment - Applicant approved equipment list

Off-road Equipment - Applicant approved equipment list

Off-road Equipment - Applicant approved equipment list

Trips and VMT - Default number of workers assumed for all activities; 2 trucks assumed for a material haul truck and water truck

Grading - CalEEMod estimated grading = 15 acres

Construction Off-road Equipment Mitigation - The project would comply with SMAQMD Basic Construction Emissions Controls Practices (BMPs).

Table Name	Column Name	Default Value	New Value
------------	-------------	---------------	-----------

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Annual

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

tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	300.00	260.00
tblConstructionPhase	NumDays	10.00	260.00
tblGrading	AcresOfGrading	130.00	15.00
tblLandUse	LotAcreage	0.00	19.01
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	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
Year	tons/yr										MT/yr					
2022	0.2233	2.2578	1.5718	3.2700e-003	0.3646	0.1027	0.4673	0.1941	0.0955	0.2896	0.0000	286.0038	286.0038	0.0759	2.1000e-003	288.5262
2023	0.2469	2.4590	1.8996	4.1200e-003	0.4576	0.1067	0.5644	0.2445	0.0993	0.3437	0.0000	359.9153	359.9153	0.0953	2.5500e-003	363.0589
Maximum	0.2469	2.4590	1.8996	4.1200e-003	0.4576	0.1067	0.5644	0.2445	0.0993	0.3437	0.0000	359.9153	359.9153	0.0953	2.5500e-003	363.0589

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Annual

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

Mitigated Construction

	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
Year	tons/yr										MT/yr					
2022	0.2233	2.2578	1.5718	3.2700e-003	0.1690	0.1027	0.2718	0.0887	0.0955	0.1842	0.0000	286.0035	286.0035	0.0759	2.1000e-003	288.5259
2023	0.2469	2.4590	1.8996	4.1200e-003	0.2122	0.1067	0.3189	0.1118	0.0993	0.2110	0.0000	359.9149	359.9149	0.0953	2.5500e-003	363.0585
Maximum	0.2469	2.4590	1.8996	4.1200e-003	0.2122	0.1067	0.3189	0.1118	0.0993	0.2110	0.0000	359.9149	359.9149	0.0953	2.5500e-003	363.0585

	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	53.64	0.00	42.75	54.29	0.00	37.59	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2022	9-30-2022	1.0472	1.0472
2	10-1-2022	12-31-2022	1.4184	1.4184
3	1-1-2023	3-31-2023	1.2002	1.2002
4	4-1-2023	6-30-2023	1.2122	1.2122
5	7-1-2023	9-30-2023	0.2797	0.2797
		Highest	1.4184	1.4184

3.0 Construction Detail

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Annual

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

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/25/2022	7/21/2023	5	260	
2	Trenching	Trenching	7/25/2022	7/21/2023	5	260	
3	Cable Laying/Vaulting	Building Construction	7/25/2022	7/21/2023	5	260	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Cable Laying/Vaulting	Cranes	1	7.00	231	0.29
Cable Laying/Vaulting	Excavators	0	8.00	158	0.38
Cable Laying/Vaulting	Forklifts	1	8.00	89	0.20
Cable Laying/Vaulting	Generator Sets	1	8.00	84	0.74
Cable Laying/Vaulting	Graders	0	8.00	187	0.41
Cable Laying/Vaulting	Rubber Tired Dozers	0	8.00	247	0.40
Cable Laying/Vaulting	Scrapers	0	8.00	367	0.48
Cable Laying/Vaulting	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Cable Laying/Vaulting	Welders	1	8.00	46	0.45
Trenching	Cranes	0	7.00	231	0.29
Trenching	Excavators	1	8.00	158	0.38

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Annual

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

Off-Road	0.0576	0.6020	0.3347	6.7000e-004		0.0292	0.0292		0.0269	0.0269	0.0000	58.8543	58.8543	0.0190	0.0000	59.3302
Total	0.0576	0.6020	0.3347	6.7000e-004	0.3542	0.0292	0.3834	0.1912	0.0269	0.2181	0.0000	58.8543	58.8543	0.0190	0.0000	59.3302

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	4.9000e-004	0.0132	3.8400e-003	5.0000e-005	1.3500e-003	1.2000e-004	1.4700e-003	3.9000e-004	1.2000e-004	5.1000e-004	0.0000	4.4153	4.4153	1.2000e-004	6.5000e-004	4.6110
Worker	8.9000e-004	5.8000e-004	7.2500e-003	2.0000e-005	2.1100e-003	1.0000e-005	2.1200e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.7387	1.7387	6.0000e-005	5.0000e-005	1.7558
Total	1.3800e-003	0.0138	0.0111	7.0000e-005	3.4600e-003	1.3000e-004	3.5900e-003	9.5000e-004	1.3000e-004	1.0800e-003	0.0000	6.1540	6.1540	1.8000e-004	7.0000e-004	6.3668

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					

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Annual

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

Fugitive Dust					0.1594	0.0000	0.1594	0.0860	0.0000	0.0860	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0576	0.6020	0.3347	6.7000e-004		0.0292	0.0292		0.0269	0.0269	0.0000	58.8542	58.8542	0.0190	0.0000	59.3301
Total	0.0576	0.6020	0.3347	6.7000e-004	0.1594	0.0292	0.1886	0.0860	0.0269	0.1129	0.0000	58.8542	58.8542	0.0190	0.0000	59.3301

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	4.9000e-004	0.0132	3.8400e-003	5.0000e-005	1.2600e-003	1.2000e-004	1.3800e-003	3.7000e-004	1.2000e-004	4.9000e-004	0.0000	4.4153	4.4153	1.2000e-004	6.5000e-004	4.6110
Worker	8.9000e-004	5.8000e-004	7.2500e-003	2.0000e-005	1.9500e-003	1.0000e-005	1.9600e-003	5.2000e-004	1.0000e-005	5.3000e-004	0.0000	1.7387	1.7387	6.0000e-005	5.0000e-005	1.7558
Total	1.3800e-003	0.0138	0.0111	7.0000e-005	3.2100e-003	1.3000e-004	3.3400e-003	8.9000e-004	1.3000e-004	1.0200e-003	0.0000	6.1540	6.1540	1.8000e-004	7.0000e-004	6.3668

3.2 Site Preparation - 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
--	-----	-----	----	-----	---------------	--------------	------------	----------------	---------------	-------------	----------	-----------	-----------	-----	-----	------

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Annual

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

Category	tons/yr										MT/yr					
	Fugitive Dust					0.4446	0.0000	0.4446	0.2409	0.0000	0.2409	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0606	0.6281	0.3870	8.4000e-004		0.0288	0.0288		0.0265	0.0265	0.0000	74.2275	74.2275	0.0240	0.0000	74.8277
Total	0.0606	0.6281	0.3870	8.4000e-004	0.4446	0.0288	0.4733	0.2409	0.0265	0.2673	0.0000	74.2275	74.2275	0.0240	0.0000	74.8277

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	3.8000e-004	0.0141	4.2600e-003	6.0000e-005	1.7000e-003	8.0000e-005	1.7700e-003	4.9000e-004	7.0000e-005	5.6000e-004	0.0000	5.3786	5.3786	1.3000e-004	7.9000e-004	5.6171
Worker	1.0400e-003	6.4000e-004	8.4500e-003	2.0000e-005	2.6600e-003	1.0000e-005	2.6800e-003	7.1000e-004	1.0000e-005	7.2000e-004	0.0000	2.1358	2.1358	7.0000e-005	6.0000e-005	2.1557
Total	1.4200e-003	0.0148	0.0127	8.0000e-005	4.3600e-003	9.0000e-005	4.4500e-003	1.2000e-003	8.0000e-005	1.2800e-003	0.0000	7.5144	7.5144	2.0000e-004	8.5000e-004	7.7728

Mitigated Construction On-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, 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					
Fugitive Dust					0.2001	0.0000	0.2001	0.1084	0.0000	0.1084	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0606	0.6281	0.3870	8.4000e-004		0.0288	0.0288		0.0265	0.0265	0.0000	74.2274	74.2274	0.0240	0.0000	74.8276
Total	0.0606	0.6281	0.3870	8.4000e-004	0.2001	0.0288	0.2288	0.1084	0.0265	0.1348	0.0000	74.2274	74.2274	0.0240	0.0000	74.8276

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	3.8000e-004	0.0141	4.2600e-003	6.0000e-005	1.5900e-003	8.0000e-005	1.6700e-003	4.6000e-004	7.0000e-005	5.4000e-004	0.0000	5.3786	5.3786	1.3000e-004	7.9000e-004	5.6171
Worker	1.0400e-003	6.4000e-004	8.4500e-003	2.0000e-005	2.4600e-003	1.0000e-005	2.4700e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	2.1358	2.1358	7.0000e-005	6.0000e-005	2.1557
Total	1.4200e-003	0.0148	0.0127	8.0000e-005	4.0500e-003	9.0000e-005	4.1400e-003	1.1200e-003	8.0000e-005	1.2100e-003	0.0000	7.5144	7.5144	2.0000e-004	8.5000e-004	7.7728

3.3 Trenching - 2022

Unmitigated Construction On-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, 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					
Off-Road	0.0931	1.0065	0.6208	1.3500e-003		0.0437	0.0437		0.0402	0.0402	0.0000	118.3878	118.3878	0.0383	0.0000	119.3450
Total	0.0931	1.0065	0.6208	1.3500e-003		0.0437	0.0437		0.0402	0.0402	0.0000	118.3878	118.3878	0.0383	0.0000	119.3450

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	4.9000e-004	0.0132	3.8400e-003	5.0000e-005	1.3500e-003	1.2000e-004	1.4700e-003	3.9000e-004	1.2000e-004	5.1000e-004	0.0000	4.4153	4.4153	1.2000e-004	6.5000e-004	4.6110
Worker	1.7700e-003	1.1500e-003	0.0145	4.0000e-005	4.2200e-003	2.0000e-005	4.2500e-003	1.1200e-003	2.0000e-005	1.1500e-003	0.0000	3.4774	3.4774	1.2000e-004	1.0000e-004	3.5116
Total	2.2600e-003	0.0144	0.0183	9.0000e-005	5.5700e-003	1.4000e-004	5.7200e-003	1.5100e-003	1.4000e-004	1.6600e-003	0.0000	7.8927	7.8927	2.4000e-004	7.5000e-004	8.1226

Mitigated Construction On-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, 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					
Off-Road	0.0931	1.0065	0.6208	1.3500e-003		0.0437	0.0437		0.0402	0.0402	0.0000	118.3876	118.3876	0.0383	0.0000	119.3449
Total	0.0931	1.0065	0.6208	1.3500e-003		0.0437	0.0437		0.0402	0.0402	0.0000	118.3876	118.3876	0.0383	0.0000	119.3449

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	4.9000e-004	0.0132	3.8400e-003	5.0000e-005	1.2600e-003	1.2000e-004	1.3800e-003	3.7000e-004	1.2000e-004	4.9000e-004	0.0000	4.4153	4.4153	1.2000e-004	6.5000e-004	4.6110
Worker	1.7700e-003	1.1500e-003	0.0145	4.0000e-005	3.8900e-003	2.0000e-005	3.9200e-003	1.0400e-003	2.0000e-005	1.0600e-003	0.0000	3.4774	3.4774	1.2000e-004	1.0000e-004	3.5116
Total	2.2600e-003	0.0144	0.0183	9.0000e-005	5.1500e-003	1.4000e-004	5.3000e-003	1.4100e-003	1.4000e-004	1.5500e-003	0.0000	7.8927	7.8927	2.4000e-004	7.5000e-004	8.1226

3.3 Trenching - 2023

Unmitigated Construction On-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, 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					
Off-Road	0.1021	1.0777	0.7459	1.7000e-003		0.0452	0.0452		0.0416	0.0416	0.0000	149.2695	149.2695	0.0483	0.0000	150.4765
Total	0.1021	1.0777	0.7459	1.7000e-003		0.0452	0.0452		0.0416	0.0416	0.0000	149.2695	149.2695	0.0483	0.0000	150.4765

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	3.8000e-004	0.0141	4.2600e-003	6.0000e-005	1.7000e-003	8.0000e-005	1.7700e-003	4.9000e-004	7.0000e-005	5.6000e-004	0.0000	5.3786	5.3786	1.3000e-004	7.9000e-004	5.6171
Worker	2.0800e-003	1.2900e-003	0.0169	5.0000e-005	5.3200e-003	3.0000e-005	5.3500e-003	1.4200e-003	3.0000e-005	1.4400e-003	0.0000	4.2716	4.2716	1.4000e-004	1.2000e-004	4.3113
Total	2.4600e-003	0.0154	0.0212	1.1000e-004	7.0200e-003	1.1000e-004	7.1200e-003	1.9100e-003	1.0000e-004	2.0000e-003	0.0000	9.6502	9.6502	2.7000e-004	9.1000e-004	9.9284

Mitigated Construction On-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, 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					
Off-Road	0.1021	1.0777	0.7459	1.7000e-003		0.0452	0.0452		0.0416	0.0416	0.0000	149.2694	149.2694	0.0483	0.0000	150.4763
Total	0.1021	1.0777	0.7459	1.7000e-003		0.0452	0.0452		0.0416	0.0416	0.0000	149.2694	149.2694	0.0483	0.0000	150.4763

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	3.8000e-004	0.0141	4.2600e-003	6.0000e-005	1.5900e-003	8.0000e-005	1.6700e-003	4.6000e-004	7.0000e-005	5.4000e-004	0.0000	5.3786	5.3786	1.3000e-004	7.9000e-004	5.6171
Worker	2.0800e-003	1.2900e-003	0.0169	5.0000e-005	4.9100e-003	3.0000e-005	4.9400e-003	1.3100e-003	3.0000e-005	1.3400e-003	0.0000	4.2716	4.2716	1.4000e-004	1.2000e-004	4.3113
Total	2.4600e-003	0.0154	0.0212	1.1000e-004	6.5000e-003	1.1000e-004	6.6100e-003	1.7700e-003	1.0000e-004	1.8800e-003	0.0000	9.6502	9.6502	2.7000e-004	9.1000e-004	9.9284

3.4 Cable Laying/Vaulting - 2022

Unmitigated Construction On-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, 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					
Off-Road	0.0685	0.6080	0.5830	1.0600e-003		0.0294	0.0294		0.0280	0.0280	0.0000	90.2998	90.2998	0.0180	0.0000	90.7506
Total	0.0685	0.6080	0.5830	1.0600e-003		0.0294	0.0294		0.0280	0.0280	0.0000	90.2998	90.2998	0.0180	0.0000	90.7506

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	4.9000e-004	0.0132	3.8400e-003	5.0000e-005	1.3500e-003	1.2000e-004	1.4700e-003	3.9000e-004	1.2000e-004	5.1000e-004	0.0000	4.4153	4.4153	1.2000e-004	6.5000e-004	4.6110
Worker	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
Total	4.9000e-004	0.0132	3.8400e-003	5.0000e-005	1.3500e-003	1.2000e-004	1.4700e-003	3.9000e-004	1.2000e-004	5.1000e-004	0.0000	4.4153	4.4153	1.2000e-004	6.5000e-004	4.6110

Mitigated Construction On-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, 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					
Off-Road	0.0685	0.6080	0.5830	1.0600e-003		0.0294	0.0294		0.0280	0.0280	0.0000	90.2997	90.2997	0.0180	0.0000	90.7505
Total	0.0685	0.6080	0.5830	1.0600e-003		0.0294	0.0294		0.0280	0.0280	0.0000	90.2997	90.2997	0.0180	0.0000	90.7505

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	4.9000e-004	0.0132	3.8400e-003	5.0000e-005	1.2600e-003	1.2000e-004	1.3800e-003	3.7000e-004	1.2000e-004	4.9000e-004	0.0000	4.4153	4.4153	1.2000e-004	6.5000e-004	4.6110
Worker	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
Total	4.9000e-004	0.0132	3.8400e-003	5.0000e-005	1.2600e-003	1.2000e-004	1.3800e-003	3.7000e-004	1.2000e-004	4.9000e-004	0.0000	4.4153	4.4153	1.2000e-004	6.5000e-004	4.6110

3.4 Cable Laying/Vaulting - 2023

Unmitigated Construction On-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, 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					
Off-Road	0.0800	0.7089	0.7286	1.3400e-003		0.0325	0.0325		0.0310	0.0310	0.0000	113.8750	113.8750	0.0225	0.0000	114.4364
Total	0.0800	0.7089	0.7286	1.3400e-003		0.0325	0.0325		0.0310	0.0310	0.0000	113.8750	113.8750	0.0225	0.0000	114.4364

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	3.8000e-004	0.0141	4.2600e-003	6.0000e-005	1.7000e-003	8.0000e-005	1.7700e-003	4.9000e-004	7.0000e-005	5.6000e-004	0.0000	5.3786	5.3786	1.3000e-004	7.9000e-004	5.6171
Worker	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
Total	3.8000e-004	0.0141	4.2600e-003	6.0000e-005	1.7000e-003	8.0000e-005	1.7700e-003	4.9000e-004	7.0000e-005	5.6000e-004	0.0000	5.3786	5.3786	1.3000e-004	7.9000e-004	5.6171

Mitigated Construction On-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, 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					
Off-Road	0.0800	0.7089	0.7286	1.3400e-003		0.0325	0.0325		0.0310	0.0310	0.0000	113.8749	113.8749	0.0225	0.0000	114.4363
Total	0.0800	0.7089	0.7286	1.3400e-003		0.0325	0.0325		0.0310	0.0310	0.0000	113.8749	113.8749	0.0225	0.0000	114.4363

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	3.8000e-004	0.0141	4.2600e-003	6.0000e-005	1.5900e-003	8.0000e-005	1.6700e-003	4.6000e-004	7.0000e-005	5.4000e-004	0.0000	5.3786	5.3786	1.3000e-004	7.9000e-004	5.6171
Worker	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
Total	3.8000e-004	0.0141	4.2600e-003	6.0000e-005	1.5900e-003	8.0000e-005	1.6700e-003	4.6000e-004	7.0000e-005	5.4000e-004	0.0000	5.3786	5.3786	1.3000e-004	7.9000e-004	5.6171

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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

Cordova Park 69 kV Underground Cable Replacement

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	19.01	User Defined Unit	19.01	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 69 kV = 19.01 acres

Construction Phase - 12 month construction schedule

Off-road Equipment - Applicant approved equipment list

Off-road Equipment - Applicant approved equipment list

Off-road Equipment - Applicant approved equipment list

Trips and VMT - Default number of workers assumed for all activities; 2 trucks assumed for a material haul truck and water truck

Grading - CalEEMod estimated grading = 15 acres

Construction Off-road Equipment Mitigation - The project would comply with SMAQMD Basic Construction Emissions Controls Practices (BMPs).

Table Name	Column Name	Default Value	New Value
------------	-------------	---------------	-----------

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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

tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	300.00	260.00
tblConstructionPhase	NumDays	10.00	260.00
tblGrading	AcresOfGrading	130.00	15.00
tblLandUse	LotAcreage	0.00	19.01
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	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
Year	lb/day										lb/day					
2022	3.8921	39.2277	27.3967	0.0570	6.2697	1.7866	8.0563	3.3679	1.6608	5.0287	0.0000	5,492.5023	5,492.5023	1.4545	0.0400	5,540.7915
2023	3.4136	33.8854	26.2571	0.0569	6.2697	1.4722	7.7419	3.3679	1.3692	4.7371	0.0000	5,481.5205	5,481.5205	1.4494	0.0386	5,529.2508
Maximum	3.8921	39.2277	27.3967	0.0570	6.2697	1.7866	8.0563	3.3679	1.6608	5.0287	0.0000	5,492.5023	5,492.5023	1.4545	0.0400	5,540.7915

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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

Mitigated Construction

	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
Year	lb/day										lb/day					
2022	3.8921	39.2277	27.3967	0.0570	2.9103	1.7866	4.6969	1.5403	1.6608	3.2011	0.0000	5,492.5023	5,492.5023	1.4545	0.0400	5,540.7915
2023	3.4136	33.8854	26.2571	0.0569	2.9103	1.4722	4.3825	1.5403	1.3692	2.9095	0.0000	5,481.5205	5,481.5205	1.4494	0.0386	5,529.2508
Maximum	3.8921	39.2277	27.3967	0.0570	2.9103	1.7866	4.6969	1.5403	1.6608	3.2011	0.0000	5,492.5023	5,492.5023	1.4545	0.0400	5,540.7915

	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	53.58	0.00	42.53	54.26	0.00	37.43	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	Site Preparation	Site Preparation	7/25/2022	7/21/2023	5	260	
2	Trenching	Trenching	7/25/2022	7/21/2023	5	260	
3	Cable Laying/Vaulting	Building Construction	7/25/2022	7/21/2023	5	260	

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Cable Laying/Vaulting	Cranes	1	7.00	231	0.29
Cable Laying/Vaulting	Excavators	0	8.00	150	0.38
Cable Laying/Vaulting	Forklifts	1	8.00	89	0.20
Cable Laying/Vaulting	Generator Sets	1	8.00	84	0.74
Cable Laying/Vaulting	Graders	0	8.00	187	0.41
Cable Laying/Vaulting	Rubber Tired Dozers	0	8.00	247	0.40
Cable Laying/Vaulting	Scrapers	0	8.00	367	0.48
Cable Laying/Vaulting	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Cable Laying/Vaulting	Welders	1	8.00	46	0.45
Trenching	Cranes	0	7.00	231	0.29
Trenching	Excavators	1	8.00	150	0.38
Trenching	Forklifts	0	8.00	89	0.20
Trenching	Generator Sets	0	8.00	84	0.74
Trenching	Graders	1	8.00	187	0.41
Trenching	Rubber Tired Dozers	1	8.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Welders	0	8.00	46	0.45

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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
Site Preparation	2	5.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Cable Laying/Vaulting	5	0.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	4	10.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2022

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	lb/day										lb/day					
Fugitive Dust					6.0833	0.0000	6.0833	3.3168	0.0000	3.3168			0.0000			0.0000
Off-Road	1.0018	10.4693	5.8199	0.0116		0.5075	0.5075		0.4669	0.4669		1,128.2743	1,128.2743	0.3649		1,137.3970
Total	1.0018	10.4693	5.8199	0.0116	6.0833	0.5075	6.5908	3.3168	0.4669	3.7837		1,128.2743	1,128.2743	0.3649		1,137.3970

Unmitigated Construction Off-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0241	2.1200e-003	0.0262	6.9400e-003	2.0200e-003	8.9600e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	0.0181	9.1500e-003	0.1479	3.6000e-004	0.0380	2.1000e-004	0.0382	0.0101	1.9000e-004	0.0103		36.5376	36.5376	1.0800e-003	9.4000e-004	36.8461
Total	0.0268	0.2270	0.2135	1.1500e-003	0.0621	2.3300e-003	0.0645	0.0170	2.2100e-003	0.0192		121.1852	121.1852	3.2900e-003	0.0133	125.2431

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	lb/day										lb/day					
Fugitive Dust					2.7375	0.0000	2.7375	1.4926	0.0000	1.4926			0.0000			0.0000
Off-Road	1.0018	10.4693	5.8199	0.0116		0.5075	0.5075		0.4669	0.4669	0.0000	1,128.2743	1,128.2743	0.3649		1,137.3970
Total	1.0018	10.4693	5.8199	0.0116	2.7375	0.5075	3.2450	1.4926	0.4669	1.9595	0.0000	1,128.2743	1,128.2743	0.3649		1,137.3970

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0226	2.1200e-003	0.0247	6.5600e-003	2.0200e-003	8.5800e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	0.0181	9.1500e-003	0.1479	3.6000e-004	0.0351	2.1000e-004	0.0353	9.3600e-003	1.9000e-004	9.5500e-003		36.5376	36.5376	1.0800e-003	9.4000e-004	36.8461
Total	0.0268	0.2270	0.2135	1.1500e-003	0.0576	2.3300e-003	0.0599	0.0159	2.2100e-003	0.0181		121.1852	121.1852	3.2900e-003	0.0133	125.2431

3.2 Site Preparation - 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	lb/day										lb/day					
Fugitive Dust					6.0833	0.0000	6.0833	3.3168	0.0000	3.3168			0.0000			0.0000
Off-Road	0.8360	8.6628	5.3377	0.0117		0.3967	0.3967		0.3650	0.3650		1,128.5772	1,128.5772	0.3650		1,137.7023
Total	0.8360	8.6628	5.3377	0.0117	6.0833	0.3967	6.4800	3.3168	0.3650	3.6818		1,128.5772	1,128.5772	0.3650		1,137.7023

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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

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	lb/day										lb/day					
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
Vendor	5.3500e-003	0.1852	0.0577	7.6000e-004	0.0241	1.0300e-003	0.0251	6.9400e-003	9.9000e-004	7.9300e-003		81.7537	81.7537	2.0200e-003	0.0120	85.3754
Worker	0.0169	8.1000e-003	0.1363	3.5000e-004	0.0380	2.0000e-004	0.0382	0.0101	1.8000e-004	0.0103		35.5849	35.5849	9.8000e-004	8.7000e-004	35.8698
Total	0.0222	0.1933	0.1939	1.1100e-003	0.0621	1.2300e-003	0.0634	0.0170	1.1700e-003	0.0182		117.3386	117.3386	3.0000e-003	0.0129	121.2452

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	lb/day										lb/day					
Fugitive Dust					2.7375	0.0000	2.7375	1.4926	0.0000	1.4926			0.0000			0.0000
Off-Road	0.8360	8.6628	5.3377	0.0117		0.3967	0.3967		0.3650	0.3650	0.0000	1,128.5772	1,128.5772	0.3650		1,137.7023
Total	0.8360	8.6628	5.3377	0.0117	2.7375	0.3967	3.1342	1.4926	0.3650	1.8576	0.0000	1,128.5772	1,128.5772	0.3650		1,137.7023

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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

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	lb/day										lb/day					
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
Vendor	5.3500e-003	0.1852	0.0577	7.6000e-004	0.0226	1.0300e-003	0.0236	6.5600e-003	9.9000e-004	7.5500e-003		81.7537	81.7537	2.0200e-003	0.0120	85.3754
Worker	0.0169	8.1000e-003	0.1363	3.5000e-004	0.0351	2.0000e-004	0.0353	9.3600e-003	1.8000e-004	9.5400e-003		35.5849	35.5849	9.8000e-004	6.7000e-004	35.8698
Total	0.0222	0.1933	0.1939	1.1100e-003	0.0576	1.2300e-003	0.0589	0.0159	1.1700e-003	0.0171		117.3386	117.3386	3.0000e-003	0.0129	121.2452

3.3 Trenching - 2022

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	lb/day										lb/day					
Off-Road	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998		2,269.5685	2,269.5685	0.7340		2,287.9191
Total	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998		2,269.5685	2,269.5685	0.7340		2,287.9191

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0241	2.1200e-003	0.0262	6.9400e-003	2.0200e-003	8.9600e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	0.0362	0.0183	0.2958	7.2000e-004	0.0761	4.1000e-004	0.0765	0.0202	3.8000e-004	0.0206		73.0752	73.0752	2.1700e-003	1.8900e-003	73.6921
Total	0.0449	0.2362	0.3614	1.5100e-003	0.1002	2.5300e-003	0.1027	0.0271	2.4000e-003	0.0295		157.7228	157.7228	4.3800e-003	0.0143	162.0891

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	lb/day										lb/day					
Off-Road	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998	0.0000	2,269.5685	2,269.5685	0.7340		2,287.9191
Total	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998	0.0000	2,269.5685	2,269.5685	0.7340		2,287.9191

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0226	2.1200e-003	0.0247	6.5600e-003	2.0200e-003	8.5800e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	0.0362	0.0183	0.2958	7.2000e-004	0.0701	4.1000e-004	0.0705	0.0187	3.8000e-004	0.0191		73.0752	73.0752	2.1700e-003	1.8900e-003	73.6921
Total	0.0449	0.2362	0.3614	1.5100e-003	0.0927	2.5300e-003	0.0952	0.0253	2.4000e-003	0.0277		157.7228	157.7228	4.3800e-003	0.0143	162.0891

3.3 Trenching - 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	lb/day										lb/day					
Off-Road	1.4082	14.8645	10.2881	0.0234		0.6233	0.6233		0.5734	0.5734		2,269.5380	2,269.5380	0.7340		2,287.8884
Total	1.4082	14.8645	10.2881	0.0234		0.6233	0.6233		0.5734	0.5734		2,269.5380	2,269.5380	0.7340		2,287.8884

Unmitigated Construction Off-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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	lb/day										lb/day					
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
Vendor	5.3500e-003	0.1852	0.0577	7.6000e-004	0.0241	1.0300e-003	0.0251	6.9400e-003	9.9000e-004	7.9300e-003		81.7537	81.7537	2.0200e-003	0.0120	85.3754
Worker	0.0337	0.0162	0.2725	7.0000e-004	0.0761	3.9000e-004	0.0765	0.0202	3.6000e-004	0.0205		71.1699	71.1699	1.9500e-003	1.7500e-003	71.7396
Total	0.0391	0.2014	0.3302	1.4600e-003	0.1002	1.4200e-003	0.1016	0.0271	1.3500e-003	0.0285		152.9236	152.9236	3.9700e-003	0.0137	157.1150

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	lb/day										lb/day					
Off-Road	1.4082	14.8645	10.2881	0.0234		0.6233	0.6233		0.5734	0.5734	0.0000	2,269.5380	2,269.5380	0.7340		2,287.8884
Total	1.4082	14.8645	10.2881	0.0234		0.6233	0.6233		0.5734	0.5734	0.0000	2,269.5380	2,269.5380	0.7340		2,287.8884

Mitigated Construction Off-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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	lb/day										lb/day					
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
Vendor	5.3500e-003	0.1852	0.0577	7.6000e-004	0.0226	1.0300e-003	0.0236	6.5600e-003	9.9000e-004	7.5500e-003		81.7537	81.7537	2.0200e-003	0.0120	85.3754
Worker	0.0337	0.0162	0.2725	7.0000e-004	0.0701	3.9000e-004	0.0705	0.0187	3.6000e-004	0.0191		71.1699	71.1699	1.9500e-003	1.7500e-003	71.7396
Total	0.0391	0.2014	0.3302	1.4600e-003	0.0927	1.4200e-003	0.0941	0.0253	1.3500e-003	0.0266		152.9236	152.9236	3.9700e-003	0.0137	157.1150

3.4 Cable Laying/Vaulting - 2022

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	lb/day										lb/day					
Off-Road	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875		1,731.1038	1,731.1038	0.3457		1,739.7462
Total	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875		1,731.1038	1,731.1038	0.3457		1,739.7462

Unmitigated Construction Off-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0241	2.1200e-003	0.0262	6.9400e-003	2.0200e-003	8.9600e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	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
Total	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0241	2.1200e-003	0.0262	6.9400e-003	2.0200e-003	8.9600e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970

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	lb/day										lb/day					
Off-Road	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875	0.0000	1,731.1038	1,731.1038	0.3457		1,739.7462
Total	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875	0.0000	1,731.1038	1,731.1038	0.3457		1,739.7462

Mitigated Construction Off-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0226	2.1200e-003	0.0247	6.5600e-003	2.0200e-003	8.5800e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	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
Total	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0226	2.1200e-003	0.0247	6.5600e-003	2.0200e-003	8.5800e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970

3.4 Cable Laying/Vaulting - 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	lb/day										lb/day					
Off-Road	1.1028	9.7781	10.0496	0.0184		0.4485	0.4485		0.4273	0.4273		1,731.3894	1,731.3894	0.3414		1,739.9245
Total	1.1028	9.7781	10.0496	0.0184		0.4485	0.4485		0.4273	0.4273		1,731.3894	1,731.3894	0.3414		1,739.9245

Unmitigated Construction Off-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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	lb/day										lb/day					
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
Vendor	5.3500e-003	0.1852	0.0577	7.6000e-004	0.0241	1.0300e-003	0.0251	6.9400e-003	9.9000e-004	7.9300e-003		81.7537	81.7537	2.0200e-003	0.0120	85.3754
Worker	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
Total	5.3500e-003	0.1852	0.0577	7.6000e-004	0.0241	1.0300e-003	0.0251	6.9400e-003	9.9000e-004	7.9300e-003		81.7537	81.7537	2.0200e-003	0.0120	85.3754

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	lb/day										lb/day					
Off-Road	1.1028	9.7781	10.0496	0.0184		0.4485	0.4485		0.4273	0.4273	0.0000	1,731.3894	1,731.3894	0.3414		1,739.9245
Total	1.1028	9.7781	10.0496	0.0184		0.4485	0.4485		0.4273	0.4273	0.0000	1,731.3894	1,731.3894	0.3414		1,739.9245

Mitigated Construction Off-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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	lb/day										lb/day					
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
Vendor	5.3500e-003	0.1852	0.0577	7.6000e-004	0.0226	1.0300e-003	0.0236	6.5600e-003	9.9000e-004	7.5500e-003		81.7537	81.7537	2.0200e-003	0.0120	85.3754
Worker	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
Total	5.3500e-003	0.1852	0.0577	7.6000e-004	0.0226	1.0300e-003	0.0236	6.5600e-003	9.9000e-004	7.5500e-003		81.7537	81.7537	2.0200e-003	0.0120	85.3754

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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

Cordova Park 69 kV Underground Cable Replacement

Sacramento County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	19.01	User Defined Unit	19.01	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 69 kV = 19.01 acres

Construction Phase - 12 month construction schedule

Off-road Equipment - Applicant approved equipment list

Off-road Equipment - Applicant approved equipment list

Off-road Equipment - Applicant approved equipment list

Trips and VMT - Default number of workers assumed for all activities; 2 trucks assumed for a material haul truck and water truck

Grading - CalEEMod estimated grading = 15 acres

Construction Off-road Equipment Mitigation - The project would comply with SMAQMD Basic Construction Emissions Controls Practices (BMPs).

Table Name	Column Name	Default Value	New Value
------------	-------------	---------------	-----------

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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

tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	300.00	260.00
tblConstructionPhase	NumDays	10.00	260.00
tblGrading	AcresOfGrading	130.00	15.00
tblLandUse	LotAcreage	0.00	19.01
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	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
Year	lb/day										lb/day					
2022	3.8854	39.2824	27.3461	0.0568	6.2697	1.7867	8.0563	3.3679	1.6608	5.0288	0.0000	5,480.3270	5,480.3270	1.4550	0.0405	5,528.7704
2023	3.4073	33.9324	26.2122	0.0567	6.2697	1.4722	7.7419	3.3679	1.3692	4.7371	0.0000	5,469.9032	5,469.9032	1.4498	0.0390	5,517.7843
Maximum	3.8854	39.2824	27.3461	0.0568	6.2697	1.7867	8.0563	3.3679	1.6608	5.0288	0.0000	5,480.3270	5,480.3270	1.4550	0.0405	5,528.7704

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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

Mitigated Construction

	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
Year	lb/day										lb/day					
2022	3.8854	39.2824	27.3461	0.0568	2.9103	1.7867	4.6970	1.5403	1.6608	3.2012	0.0000	5,480.3270	5,480.3270	1.4550	0.0405	5,528.7704
2023	3.4073	33.9324	26.2122	0.0567	2.9103	1.4722	4.3825	1.5403	1.3692	2.9096	0.0000	5,469.9032	5,469.9032	1.4498	0.0390	5,517.7843
Maximum	3.8854	39.2824	27.3461	0.0568	2.9103	1.7867	4.6970	1.5403	1.6608	3.2012	0.0000	5,480.3270	5,480.3270	1.4550	0.0405	5,528.7704

	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	53.58	0.00	42.53	54.26	0.00	37.43	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	Site Preparation	Site Preparation	7/25/2022	7/21/2023	5	260	
2	Trenching	Trenching	7/25/2022	7/21/2023	5	260	
3	Cable Laying/Vaulting	Building Construction	7/25/2022	7/21/2023	5	260	

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Cable Laying/Vaulting	Cranes	1	7.00	231	0.29
Cable Laying/Vaulting	Excavators	0	8.00	150	0.38
Cable Laying/Vaulting	Forklifts	1	8.00	89	0.20
Cable Laying/Vaulting	Generator Sets	1	8.00	84	0.74
Cable Laying/Vaulting	Graders	0	8.00	187	0.41
Cable Laying/Vaulting	Rubber Tired Dozers	0	8.00	247	0.40
Cable Laying/Vaulting	Scrapers	0	8.00	367	0.48
Cable Laying/Vaulting	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Cable Laying/Vaulting	Welders	1	8.00	46	0.45
Trenching	Cranes	0	7.00	231	0.29
Trenching	Excavators	1	8.00	150	0.38
Trenching	Forklifts	0	8.00	89	0.20
Trenching	Generator Sets	0	8.00	84	0.74
Trenching	Graders	1	8.00	187	0.41
Trenching	Rubber Tired Dozers	1	8.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Welders	0	8.00	46	0.45

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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
Site Preparation	2	5.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Cable Laying/Vaulting	5	0.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	4	10.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2022

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	lb/day										lb/day					
Fugitive Dust					6.0833	0.0000	6.0833	3.3168	0.0000	3.3168			0.0000			0.0000
Off-Road	1.0018	10.4693	5.8199	0.0116		0.5075	0.5075		0.4669	0.4669		1,128.2743	1,128.2743	0.3649		1,137.3970
Total	1.0018	10.4693	5.8199	0.0116	6.0833	0.5075	6.5908	3.3168	0.4669	3.7837		1,128.2743	1,128.2743	0.3649		1,137.3970

Unmitigated Construction Off-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0241	2.1300e-003	0.0262	6.9400e-003	2.0400e-003	8.9800e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	0.0160	0.0112	0.1281	3.2000e-004	0.0380	2.1000e-004	0.0382	0.0101	1.9000e-004	0.0103		32.4890	32.4890	1.2400e-003	1.0800e-003	32.8430
Total	0.0245	0.2453	0.1966	1.1100e-003	0.0621	2.3400e-003	0.0645	0.0170	2.2300e-003	0.0193		117.1268	117.1268	3.4400e-003	0.0135	121.2361

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	lb/day										lb/day					
Fugitive Dust					2.7375	0.0000	2.7375	1.4926	0.0000	1.4926			0.0000			0.0000
Off-Road	1.0018	10.4693	5.8199	0.0116		0.5075	0.5075		0.4669	0.4669	0.0000	1,128.2743	1,128.2743	0.3649		1,137.3970
Total	1.0018	10.4693	5.8199	0.0116	2.7375	0.5075	3.2450	1.4926	0.4669	1.9595	0.0000	1,128.2743	1,128.2743	0.3649		1,137.3970

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0226	2.1300e-003	0.0247	6.5600e-003	2.0400e-003	8.6000e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	0.0160	0.0112	0.1281	3.2000e-004	0.0351	2.1000e-004	0.0353	9.3600e-003	1.9000e-004	9.5500e-003		32.4890	32.4890	1.2400e-003	1.0800e-003	32.8430
Total	0.0245	0.2453	0.1966	1.1100e-003	0.0576	2.3400e-003	0.0600	0.0159	2.2300e-003	0.0182		117.1268	117.1268	3.4400e-003	0.0135	121.2361

3.2 Site Preparation - 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	lb/day										lb/day					
Fugitive Dust					6.0833	0.0000	6.0833	3.3168	0.0000	3.3168			0.0000			0.0000
Off-Road	0.8360	8.6628	5.3377	0.0117		0.3967	0.3967		0.3650	0.3650		1,128.5772	1,128.5772	0.3650		1,137.7023
Total	0.8360	8.6628	5.3377	0.0117	6.0833	0.3967	6.4800	3.3168	0.3650	3.6818		1,128.5772	1,128.5772	0.3650		1,137.7023

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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

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	lb/day										lb/day					
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
Vendor	5.1700e-003	0.1991	0.0603	7.6000e-004	0.0241	1.0500e-003	0.0251	6.9400e-003	1.0000e-003	7.9400e-003		81.8123	81.8123	2.0100e-003	0.0120	85.4423
Worker	0.0149	9.9300e-003	0.1187	3.1000e-004	0.0380	2.0000e-004	0.0382	0.0101	1.8000e-004	0.0103		31.6539	31.6539	1.1200e-003	1.0000e-003	31.9807
Total	0.0201	0.2090	0.1790	1.0700e-003	0.0621	1.2500e-003	0.0634	0.0170	1.1800e-003	0.0182		113.4662	113.4662	3.1300e-003	0.0130	117.4230

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	lb/day										lb/day					
Fugitive Dust					2.7375	0.0000	2.7375	1.4926	0.0000	1.4926			0.0000			0.0000
Off-Road	0.8360	8.6628	5.3377	0.0117		0.3967	0.3967		0.3650	0.3650	0.0000	1,128.5772	1,128.5772	0.3650		1,137.7023
Total	0.8360	8.6628	5.3377	0.0117	2.7375	0.3967	3.1342	1.4926	0.3650	1.8576	0.0000	1,128.5772	1,128.5772	0.3650		1,137.7023

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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

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	lb/day										lb/day					
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
Vendor	5.1700e-003	0.1991	0.0603	7.6000e-004	0.0226	1.0500e-003	0.0236	6.5600e-003	1.0000e-003	7.5600e-003		81.8123	81.8123	2.0100e-003	0.0120	85.4423
Worker	0.0149	9.9300e-003	0.1187	3.1000e-004	0.0351	2.0000e-004	0.0353	9.3600e-003	1.8000e-004	9.5400e-003		31.6539	31.6539	1.1200e-003	1.0000e-003	31.9807
Total	0.0201	0.2090	0.1790	1.0700e-003	0.0576	1.2500e-003	0.0589	0.0159	1.1800e-003	0.0171		113.4662	113.4662	3.1300e-003	0.0130	117.4230

3.3 Trenching - 2022

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	lb/day										lb/day					
Off-Road	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998		2,269.5685	2,269.5685	0.7340		2,287.9191
Total	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998		2,269.5685	2,269.5685	0.7340		2,287.9191

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0241	2.1300e-003	0.0262	6.9400e-003	2.0400e-003	8.9800e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	0.0320	0.0225	0.2562	6.4000e-004	0.0761	4.1000e-004	0.0765	0.0202	3.8000e-004	0.0206		64.9780	64.9780	2.4800e-003	2.1700e-003	65.6860
Total	0.0405	0.2565	0.3247	1.4300e-003	0.1002	2.5400e-003	0.1027	0.0271	2.4200e-003	0.0295		149.6158	149.6158	4.6800e-003	0.0146	154.0791

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	lb/day										lb/day					
Off-Road	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998	0.0000	2,269.5685	2,269.5685	0.7340		2,287.9191
Total	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998	0.0000	2,269.5685	2,269.5685	0.7340		2,287.9191

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0226	2.1300e-003	0.0247	6.5600e-003	2.0400e-003	8.6000e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	0.0320	0.0225	0.2562	6.4000e-004	0.0701	4.1000e-004	0.0705	0.0187	3.8000e-004	0.0191		64.9780	64.9780	2.4800e-003	2.1700e-003	65.6860
Total	0.0405	0.2565	0.3247	1.4300e-003	0.0927	2.5400e-003	0.0952	0.0253	2.4200e-003	0.0277		149.6158	149.6158	4.6800e-003	0.0146	154.0791

3.3 Trenching - 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	lb/day										lb/day					
Off-Road	1.4082	14.8645	10.2881	0.0234		0.6233	0.6233		0.5734	0.5734		2,269.5380	2,269.5380	0.7340		2,287.8884
Total	1.4082	14.8645	10.2881	0.0234		0.6233	0.6233		0.5734	0.5734		2,269.5380	2,269.5380	0.7340		2,287.8884

Unmitigated Construction Off-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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	lb/day										lb/day					
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
Vendor	5.1700e-003	0.1991	0.0603	7.6000e-004	0.0241	1.0500e-003	0.0251	6.9400e-003	1.0000e-003	7.9400e-003		81.8123	81.8123	2.0100e-003	0.0120	85.4423
Worker	0.0298	0.0199	0.2374	6.2000e-004	0.0761	3.9000e-004	0.0765	0.0202	3.6000e-004	0.0205		63.3078	63.3078	2.2500e-003	2.0000e-003	63.9614
Total	0.0350	0.2189	0.2977	1.3800e-003	0.1002	1.4400e-003	0.1016	0.0271	1.3600e-003	0.0285		145.1201	145.1201	4.2600e-003	0.0140	149.4037

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	lb/day										lb/day					
Off-Road	1.4082	14.8645	10.2881	0.0234		0.6233	0.6233		0.5734	0.5734	0.0000	2,269.5380	2,269.5380	0.7340		2,287.8884
Total	1.4082	14.8645	10.2881	0.0234		0.6233	0.6233		0.5734	0.5734	0.0000	2,269.5380	2,269.5380	0.7340		2,287.8884

Mitigated Construction Off-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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	lb/day										lb/day					
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
Vendor	5.1700e-003	0.1991	0.0603	7.6000e-004	0.0226	1.0500e-003	0.0236	6.5600e-003	1.0000e-003	7.5600e-003		81.8123	81.8123	2.0100e-003	0.0120	85.4423
Worker	0.0298	0.0199	0.2374	6.2000e-004	0.0701	3.9000e-004	0.0705	0.0187	3.6000e-004	0.0191		63.3078	63.3078	2.2500e-003	2.0000e-003	63.9614
Total	0.0350	0.2189	0.2977	1.3800e-003	0.0927	1.4400e-003	0.0941	0.0253	1.3600e-003	0.0266		145.1201	145.1201	4.2600e-003	0.0140	149.4037

3.4 Cable Laying/Vaulting - 2022

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	lb/day										lb/day					
Off-Road	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875		1,731.1038	1,731.1038	0.3457		1,739.7462
Total	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875		1,731.1038	1,731.1038	0.3457		1,739.7462

Unmitigated Construction Off-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0241	2.1300e-003	0.0262	6.9400e-003	2.0400e-003	8.9800e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	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
Total	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0241	2.1300e-003	0.0262	6.9400e-003	2.0400e-003	8.9800e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931

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	lb/day										lb/day					
Off-Road	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875	0.0000	1,731.1038	1,731.1038	0.3457		1,739.7462
Total	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875	0.0000	1,731.1038	1,731.1038	0.3457		1,739.7462

Mitigated Construction Off-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0226	2.1300e-003	0.0247	6.5600e-003	2.0400e-003	8.6000e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	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
Total	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0226	2.1300e-003	0.0247	6.5600e-003	2.0400e-003	8.6000e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931

3.4 Cable Laying/Vaulting - 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	lb/day										lb/day					
Off-Road	1.1028	9.7781	10.0496	0.0184		0.4485	0.4485		0.4273	0.4273		1,731.3894	1,731.3894	0.3414		1,739.9245
Total	1.1028	9.7781	10.0496	0.0184		0.4485	0.4485		0.4273	0.4273		1,731.3894	1,731.3894	0.3414		1,739.9245

Unmitigated Construction Off-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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	lb/day										lb/day					
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
Vendor	5.1700e-003	0.1991	0.0603	7.6000e-004	0.0241	1.0500e-003	0.0251	6.9400e-003	1.0000e-003	7.9400e-003		81.8123	81.8123	2.0100e-003	0.0120	85.4423
Worker	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
Total	5.1700e-003	0.1991	0.0603	7.6000e-004	0.0241	1.0500e-003	0.0251	6.9400e-003	1.0000e-003	7.9400e-003		81.8123	81.8123	2.0100e-003	0.0120	85.4423

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	lb/day										lb/day					
Off-Road	1.1028	9.7781	10.0496	0.0184		0.4485	0.4485		0.4273	0.4273	0.0000	1,731.3894	1,731.3894	0.3414		1,739.9245
Total	1.1028	9.7781	10.0496	0.0184		0.4485	0.4485		0.4273	0.4273	0.0000	1,731.3894	1,731.3894	0.3414		1,739.9245

Mitigated Construction Off-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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	lb/day										lb/day					
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
Vendor	5.1700e-003	0.1991	0.0603	7.6000e-004	0.0226	1.0500e-003	0.0236	6.5600e-003	1.0000e-003	7.5600e-003		81.8123	81.8123	2.0100e-003	0.0120	85.4423
Worker	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
Total	5.1700e-003	0.1991	0.0603	7.6000e-004	0.0226	1.0500e-003	0.0236	6.5600e-003	1.0000e-003	7.5600e-003		81.8123	81.8123	2.0100e-003	0.0120	85.4423

Cordova Park 69 kV - Paving - Sacramento County, Annual

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

**Cordova Park 69 kV - Paving
Sacramento County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.76	User Defined Unit	0.76	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6	Operational Year		2024	
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
 Land Use - Paved area along Rossmoor Dr 4,125' by 8'
 Construction Phase - 12 months of paving
 Off-road Equipment - Applicant approved equipment list
 Trips and VMT - Default number of workers assumed for all activities; 2 trucks assumed for a material haul truck and water truck
 Construction Off-road Equipment Mitigation - The project would comply with SMAQMD Basic Construction Emissions Controls Practices (BMPs).

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	260.00

Cordova Park 69 kV - Paving - Sacramento County, Annual

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

tblLandUse	LotAcreage	0.00	0.76
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	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
Year	tons/yr										MT/yr					
2022	0.0465	0.4468	0.5839	9.6000e-004	6.8400e-003	0.0223	0.0291	1.8500e-003	0.0206	0.0224	0.0000	84.2050	84.2050	0.0242	7.8000e-004	85.0429
2023	0.0547	0.5166	0.7335	1.2100e-003	8.6200e-003	0.0249	0.0335	2.3300e-003	0.0230	0.0253	0.0000	105.8559	105.8559	0.0305	9.5000e-004	106.8999
Maximum	0.0547	0.5166	0.7335	1.2100e-003	8.6200e-003	0.0249	0.0335	2.3300e-003	0.0230	0.0253	0.0000	105.8559	105.8559	0.0305	9.5000e-004	106.8999

Mitigated Construction

	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
--	-----	-----	----	-----	---------------	--------------	------------	----------------	---------------	-------------	----------	-----------	-----------	-----	-----	------

Cordova Park 69 kV - Paving - Sacramento County, Annual

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

Year	tons/yr										MT/yr					
2022	0.0465	0.4468	0.5839	9.6000e-004	6.3200e-003	0.0223	0.0286	1.7200e-003	0.0206	0.0223	0.0000	84.2049	84.2049	0.0242	7.8000e-004	85.0429
2023	0.0547	0.5166	0.7335	1.2100e-003	7.9700e-003	0.0249	0.0329	2.1700e-003	0.0230	0.0251	0.0000	105.8558	105.8558	0.0305	9.5000e-004	106.8998
Maximum	0.0547	0.5166	0.7335	1.2100e-003	7.9700e-003	0.0249	0.0329	2.1700e-003	0.0230	0.0251	0.0000	105.8558	105.8558	0.0305	9.5000e-004	106.8998

	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	7.57	0.00	1.85	6.94	0.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2022	9-30-2022	0.2082	0.2082
2	10-1-2022	12-31-2022	0.2822	0.2822
3	1-1-2023	3-31-2023	0.2536	0.2536
4	4-1-2023	6-30-2023	0.2559	0.2559
5	7-1-2023	9-30-2023	0.0591	0.0591
		Highest	0.2822	0.2822

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Paving	Paving	7/25/2022	7/21/2023	5	260	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Cordova Park 69 kV - Paving - Sacramento County, Annual

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

Category	tons/yr										MT/yr					
	Off-Road	0.0437	0.4321	0.5612	8.7000e-004		0.0221	0.0221		0.0204	0.0204	0.0000	75.2691	75.2691	0.0239	0.0000
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0437	0.4321	0.5612	8.7000e-004		0.0221	0.0221		0.0204	0.0204	0.0000	75.2691	75.2691	0.0239	0.0000	75.8669

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	4.9000e-004	0.0132	3.8400e-003	5.0000e-005	1.3500e-003	1.2000e-004	1.4700e-003	3.9000e-004	1.2000e-004	5.1000e-004	0.0000	4.4153	4.4153	1.2000e-004	6.5000e-004	4.6110
Worker	2.3000e-003	1.5000e-003	0.0189	5.0000e-005	5.4900e-003	3.0000e-005	5.5200e-003	1.4600e-003	3.0000e-005	1.4900e-003	0.0000	4.5207	4.5207	1.5000e-004	1.4000e-004	4.5651
Total	2.7900e-003	0.0147	0.0227	1.0000e-004	6.8400e-003	1.5000e-004	6.9900e-003	1.8500e-003	1.5000e-004	2.0000e-003	0.0000	8.9359	8.9359	2.7000e-004	7.9000e-004	9.1761

Mitigated Construction On-Site

Cordova Park 69 kV - Paving - Sacramento County, 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					
Off-Road	0.0437	0.4321	0.5612	8.7000e-004		0.0221	0.0221		0.0204	0.0204	0.0000	75.2690	75.2690	0.0239	0.0000	75.8668
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0437	0.4321	0.5612	8.7000e-004		0.0221	0.0221		0.0204	0.0204	0.0000	75.2690	75.2690	0.0239	0.0000	75.8668

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	4.9000e-004	0.0132	3.8400e-003	5.0000e-005	1.2600e-003	1.2000e-004	1.3800e-003	3.7000e-004	1.2000e-004	4.9000e-004	0.0000	4.4153	4.4153	1.2000e-004	6.5000e-004	4.6110
Worker	2.3000e-003	1.5000e-003	0.0189	5.0000e-005	5.0600e-003	3.0000e-005	5.0900e-003	1.3600e-003	3.0000e-005	1.3800e-003	0.0000	4.5207	4.5207	1.5000e-004	1.4000e-004	4.5651
Total	2.7900e-003	0.0147	0.0227	1.0000e-004	6.3200e-003	1.5000e-004	6.4700e-003	1.7300e-003	1.5000e-004	1.8700e-003	0.0000	8.9359	8.9359	2.7000e-004	7.9000e-004	9.1761

3.2 Paving - 2023

Unmitigated Construction On-Site

Cordova Park 69 kV - Paving - Sacramento County, 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					
Off-Road	0.0516	0.5008	0.7072	1.0900e-003		0.0248	0.0248		0.0229	0.0229	0.0000	94.9242	94.9242	0.0302	0.0000	95.6781
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0516	0.5008	0.7072	1.0900e-003		0.0248	0.0248		0.0229	0.0229	0.0000	94.9242	94.9242	0.0302	0.0000	95.6781

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	3.8000e-004	0.0141	4.2600e-003	6.0000e-005	1.7000e-003	8.0000e-005	1.7700e-003	4.9000e-004	7.0000e-005	5.6000e-004	0.0000	5.3786	5.3786	1.3000e-004	7.9000e-004	5.6171
Worker	2.7000e-003	1.6700e-003	0.0220	6.0000e-005	6.9200e-003	4.0000e-005	6.9600e-003	1.8400e-003	3.0000e-005	1.8800e-003	0.0000	5.5530	5.5530	1.8000e-004	1.6000e-004	5.6047
Total	3.0800e-003	0.0158	0.0262	1.2000e-004	8.6200e-003	1.2000e-004	8.7300e-003	2.3300e-003	1.0000e-004	2.4400e-003	0.0000	10.9316	10.9316	3.1000e-004	9.5000e-004	11.2218

Cordova Park 69 kV - Paving - Sacramento County, Annual

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

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	0.0516	0.5008	0.7072	1.0900e-003		0.0248	0.0248		0.0229	0.0229	0.0000	94.9241	94.9241	0.0302	0.0000	95.6779
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0516	0.5008	0.7072	1.0900e-003		0.0248	0.0248		0.0229	0.0229	0.0000	94.9241	94.9241	0.0302	0.0000	95.6779

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	3.8000e-004	0.0141	4.2600e-003	6.0000e-005	1.5900e-003	8.0000e-005	1.6700e-003	4.6000e-004	7.0000e-005	5.4000e-004	0.0000	5.3786	5.3786	1.3000e-004	7.9000e-004	5.6171
Worker	2.7000e-003	1.6700e-003	0.0220	6.0000e-005	6.3800e-003	4.0000e-005	6.4200e-003	1.7100e-003	3.0000e-005	1.7400e-003	0.0000	5.5530	5.5530	1.8000e-004	1.6000e-004	5.6047
Total	3.0800e-003	0.0158	0.0262	1.2000e-004	7.9700e-003	1.2000e-004	8.0900e-003	2.1700e-003	1.0000e-004	2.2800e-003	0.0000	10.9316	10.9316	3.1000e-004	9.5000e-004	11.2218

Cordova Park 69 kV - Paving - Sacramento County, Summer

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

**Cordova Park 69 kV - Paving
Sacramento County, Summer**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.76	User Defined Unit	0.76	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Paved area along Rossmoor Dr 4,125' by 8'

Construction Phase - 12 months of paving

Off-road Equipment - Applicant approved equipment list

Trips and VMT - Default number of workers assumed for all activities; 2 trucks assumed for a material haul truck and water truck

Construction Off-road Equipment Mitigation - The project would comply with SMAQMD Basic Construction Emissions Controls Practices (BMPs).

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	260.00

Cordova Park 69 kV - Paving - Sacramento County, Summer

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

tblLandUse	LotAcreage	0.00	0.76
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	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
Year	lb/day										lb/day					
2022	0.8159	7.7559	10.2096	0.0168	0.1230	0.3875	0.5105	0.0332	0.3574	0.3906	0.0000	1,622.6017	1,622.6017	0.4634	0.0149	1,638.6121
2023	0.7610	7.1139	10.1667	0.0167	0.1230	0.3432	0.4662	0.0332	0.3166	0.3498	0.0000	1,617.5303	1,617.5303	0.4630	0.0143	1,633.3541
Maximum	0.8159	7.7559	10.2096	0.0168	0.1230	0.3875	0.5105	0.0332	0.3574	0.3906	0.0000	1,622.6017	1,622.6017	0.4634	0.0149	1,638.6121

Mitigated Construction

	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
--	-----	-----	----	-----	---------------	--------------	------------	----------------	---------------	-------------	----------	-----------	-----------	-----	-----	------

Cordova Park 69 kV - Paving - Sacramento County, Summer

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

Year	lb/day										lb/day					
2022	0.8159	7.7559	10.2096	0.0168	0.1137	0.3875	0.5012	0.0309	0.3574	0.3883	0.0000	1,622.6017	1,622.6017	0.4634	0.0149	1,638.6121
2023	0.7610	7.1139	10.1667	0.0167	0.1137	0.3432	0.4569	0.0309	0.3166	0.3475	0.0000	1,617.5303	1,617.5303	0.4630	0.0143	1,633.3541
Maximum	0.8159	7.7559	10.2096	0.0168	0.1137	0.3875	0.5012	0.0309	0.3574	0.3883	0.0000	1,622.6017	1,622.6017	0.4634	0.0149	1,638.6121

	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	7.54	0.00	1.90	6.87	0.00	0.62	0.00	0.00	0.00	0.00	0.00	0.00

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	lb/day										lb/day					
Area	1.0000e-005	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.7000e-004	1.7000e-004	0.0000		1.8000e-004
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
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
Total	1.0000e-005	0.0000	8.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		1.7000e-004	1.7000e-004	0.0000	0.0000	1.8000e-004

Cordova Park 69 kV - Paving - Sacramento County, Summer

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

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	lb/day										lb/day					
Area	1.0000e-005	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.7000e-004	1.7000e-004	0.0000		1.8000e-004
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
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
Total	1.0000e-005	0.0000	8.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		1.7000e-004	1.7000e-004	0.0000	0.0000	1.8000e-004

	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	Paving	Paving	7/25/2022	7/21/2023	5	260	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Cordova Park 69 kV - Paving - Sacramento County, Summer

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

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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
Paving	5	13.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Paving - 2022

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	lb/day										lb/day					

Cordova Park 69 kV - Paving - Sacramento County, Summer

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

Off-Road	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549		1,442.9563	1,442.9563	0.4584		1,454.4154
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549		1,442.9563	1,442.9563	0.4584		1,454.4154

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0241	2.1200e-003	0.0262	6.9400e-003	2.0200e-003	8.9600e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	0.0471	0.0238	0.3845	9.3000e-004	0.0989	5.4000e-004	0.0994	0.0262	4.9000e-004	0.0267		94.9977	94.9977	2.8200e-003	2.4500e-003	95.7998
Total	0.0558	0.2417	0.4501	1.7200e-003	0.1230	2.6600e-003	0.1257	0.0332	2.5100e-003	0.0357		179.6454	179.6454	5.0300e-003	0.0149	184.1968

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
--	-----	-----	----	-----	---------------	--------------	------------	----------------	---------------	-------------	----------	-----------	-----------	-----	-----	------

Cordova Park 69 kV - Paving - Sacramento County, Summer

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

Category	lb/day										lb/day					
	Off-Road	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549	0.0000	1,442.9563	1,442.9563	0.4584	
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549	0.0000	1,442.9563	1,442.9563	0.4584		1,454.4154

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0226	2.1200e-003	0.0247	6.5600e-003	2.0200e-003	8.5800e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	0.0471	0.0238	0.3845	9.3000e-004	0.0912	5.4000e-004	0.0917	0.0243	4.9000e-004	0.0248		94.9977	94.9977	2.8200e-003	2.4500e-003	95.7998
Total	0.0558	0.2417	0.4501	1.7200e-003	0.1137	2.6600e-003	0.1164	0.0309	2.5100e-003	0.0334		179.6454	179.6454	5.0300e-003	0.0149	184.1968

3.2 Paving - 2023

Unmitigated Construction On-Site

Cordova Park 69 kV - Paving - Sacramento County, Summer

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	lb/day										lb/day					
Off-Road	0.7118	6.9076	9.7547	0.0151		0.3417	0.3417		0.3152	0.3152		1,443.2558	1,443.2558	0.4585		1,454.7173
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7118	6.9076	9.7547	0.0151		0.3417	0.3417		0.3152	0.3152		1,443.2558	1,443.2558	0.4585		1,454.7173

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	lb/day										lb/day					
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
Vendor	5.3500e-003	0.1852	0.0577	7.6000e-004	0.0241	1.0300e-003	0.0251	6.9400e-003	9.9000e-004	7.9300e-003		81.7537	81.7537	2.0200e-003	0.0120	85.3754
Worker	0.0438	0.0211	0.3543	9.0000e-004	0.0989	5.1000e-004	0.0994	0.0262	4.7000e-004	0.0267		92.5209	92.5209	2.5400e-003	2.2700e-003	93.2614
Total	0.0492	0.2063	0.4120	1.6600e-003	0.1230	1.5400e-003	0.1245	0.0332	1.4600e-003	0.0346		174.2745	174.2745	4.5600e-003	0.0143	178.6368

Mitigated Construction On-Site

Cordova Park 69 kV - Paving - Sacramento County, Summer

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	lb/day										lb/day					
Off-Road	0.7118	6.9076	9.7547	0.0151		0.3417	0.3417		0.3152	0.3152	0.0000	1,443.2558	1,443.2558	0.4585		1,454.7173
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7118	6.9076	9.7547	0.0151		0.3417	0.3417		0.3152	0.3152	0.0000	1,443.2558	1,443.2558	0.4585		1,454.7173

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	lb/day										lb/day					
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
Vendor	5.3500e-003	0.1852	0.0577	7.6000e-004	0.0226	1.0300e-003	0.0236	6.5600e-003	9.9000e-004	7.5500e-003		81.7537	81.7537	2.0200e-003	0.0120	85.3754
Worker	0.0438	0.0211	0.3543	9.0000e-004	0.0912	5.1000e-004	0.0917	0.0243	4.7000e-004	0.0248		92.5209	92.5209	2.5400e-003	2.2700e-003	93.2614
Total	0.0492	0.2063	0.4120	1.6600e-003	0.1137	1.5400e-003	0.1153	0.0309	1.4600e-003	0.0324		174.2745	174.2745	4.5600e-003	0.0143	178.6368

Cordova Park 69 kV - Paving - Sacramento County, Winter

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

**Cordova Park 69 kV - Paving
Sacramento County, Winter**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.76	User Defined Unit	0.76	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Paved area along Rossmoor Dr 4,125' by 8'

Construction Phase - 12 months of paving

Off-road Equipment - Applicant approved equipment list

Trips and VMT - Default number of workers assumed for all activities; 2 trucks assumed for a material haul truck and water truck

Construction Off-road Equipment Mitigation - The project would comply with SMAQMD Basic Construction Emissions Controls Practices (BMPs).

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	260.00

Cordova Park 69 kV - Paving - Sacramento County, Winter

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

tblLandUse	LotAcreage	0.00	0.76
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	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
Year	lb/day										lb/day					
2022	0.8103	7.7774	10.1611	0.0167	0.1230	0.3875	0.5105	0.0332	0.3574	0.3906	0.0000	1,612.0656	1,612.0656	0.4638	0.0152	1,628.2002
2023	0.7558	7.1325	10.1236	0.0166	0.1230	0.3432	0.4662	0.0332	0.3166	0.3498	0.0000	1,607.3682	1,607.3682	0.4634	0.0146	1,623.3094
Maximum	0.8103	7.7774	10.1611	0.0167	0.1230	0.3875	0.5105	0.0332	0.3574	0.3906	0.0000	1,612.0656	1,612.0656	0.4638	0.0152	1,628.2002

Mitigated Construction

	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
--	-----	-----	----	-----	---------------	--------------	------------	----------------	---------------	-------------	----------	-----------	-----------	-----	-----	------

Cordova Park 69 kV - Paving - Sacramento County, Winter

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

Year	lb/day										lb/day					
2022	0.8103	7.7774	10.1611	0.0167	0.1137	0.3875	0.5012	0.0309	0.3574	0.3883	0.0000	1,612.0656	1,612.0656	0.4638	0.0152	1,628.2002
2023	0.7558	7.1325	10.1236	0.0166	0.1137	0.3432	0.4569	0.0309	0.3166	0.3475	0.0000	1,607.3682	1,607.3682	0.4634	0.0146	1,623.3094
Maximum	0.8103	7.7774	10.1611	0.0167	0.1137	0.3875	0.5012	0.0309	0.3574	0.3883	0.0000	1,612.0656	1,612.0656	0.4638	0.0152	1,628.2002

	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	7.54	0.00	1.90	6.87	0.00	0.62	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	Paving	Paving	7/25/2022	7/21/2023	5	260	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Cement and Mortar Mixers	1	6.00	9	0.56

Cordova Park 69 kV - Paving - Sacramento County, Winter

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

Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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
Paving	5	13.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Paving - 2022

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	lb/day										lb/day					
Off-Road	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549		1,442.9563	1,442.9563	0.4584		1,454.4154
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549		1,442.9563	1,442.9563	0.4584		1,454.4154

Cordova Park 69 kV - Paving - Sacramento County, Winter

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

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0241	2.1300e-003	0.0262	6.9400e-003	2.0400e-003	8.9800e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	0.0416	0.0292	0.3331	8.3000e-004	0.0989	5.4000e-004	0.0994	0.0262	4.9000e-004	0.0267		84.4715	84.4715	3.2300e-003	2.8200e-003	85.3918
Total	0.0501	0.2632	0.4016	1.6200e-003	0.1230	2.6700e-003	0.1257	0.0332	2.5300e-003	0.0357		169.1092	169.1092	5.4300e-003	0.0152	173.7848

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	lb/day										lb/day					
Off-Road	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549	0.0000	1,442.9563	1,442.9563	0.4584		1,454.4154
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Cordova Park 69 kV - Paving - Sacramento County, Winter

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

Total	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549	0.0000	1,442.9563	1,442.9563	0.4584		1,454.4154
-------	--------	--------	--------	--------	--	--------	--------	--	--------	--------	--------	------------	------------	--------	--	------------

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0226	2.1300e-003	0.0247	6.5600e-003	2.0400e-003	8.6000e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	0.0416	0.0292	0.3331	8.3000e-004	0.0912	5.4000e-004	0.0917	0.0243	4.9000e-004	0.0248		84.4715	84.4715	3.2300e-003	2.8200e-003	85.3918
Total	0.0501	0.2632	0.4016	1.6200e-003	0.1137	2.6700e-003	0.1164	0.0309	2.5300e-003	0.0334		169.1092	169.1092	5.4300e-003	0.0152	173.7848

3.2 Paving - 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	lb/day										lb/day					
Off-Road	0.7118	6.9076	9.7547	0.0151		0.3417	0.3417		0.3152	0.3152		1,443.2558	1,443.2558	0.4585		1,454.7173

Cordova Park 69 kV - Paving - Sacramento County, Winter

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

Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000	
Total	0.7118	6.9076	9.7547	0.0151		0.3417	0.3417		0.3152	0.3152			1,443.2558	1,443.2558	0.4585		1,454.7173

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	lb/day										lb/day					
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
Vendor	5.1700e-003	0.1991	0.0603	7.6000e-004	0.0241	1.0500e-003	0.0251	6.9400e-003	1.0000e-003	7.9400e-003		81.8123	81.8123	2.0100e-003	0.0120	85.4423
Worker	0.0388	0.0258	0.3086	8.0000e-004	0.0989	5.1000e-004	0.0994	0.0262	4.7000e-004	0.0267		82.3002	82.3002	2.9200e-003	2.6100e-003	83.1498
Total	0.0440	0.2249	0.3689	1.5600e-003	0.1230	1.5600e-003	0.1245	0.0332	1.4700e-003	0.0346		164.1124	164.1124	4.9300e-003	0.0146	168.5922

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	lb/day										lb/day					

Cordova Park 69 kV - Paving - Sacramento County, Winter

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

Off-Road	0.7118	6.9076	9.7547	0.0151		0.3417	0.3417		0.3152	0.3152	0.0000	1,443.2558	1,443.2558	0.4585		1,454.7173
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7118	6.9076	9.7547	0.0151		0.3417	0.3417		0.3152	0.3152	0.0000	1,443.2558	1,443.2558	0.4585		1,454.7173

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	lb/day										lb/day					
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
Vendor	5.1700e-003	0.1991	0.0603	7.6000e-004	0.0226	1.0500e-003	0.0236	6.5600e-003	1.0000e-003	7.5600e-003		81.8123	81.8123	2.0100e-003	0.0120	85.4423
Worker	0.0388	0.0258	0.3086	8.0000e-004	0.0912	5.1000e-004	0.0917	0.0243	4.7000e-004	0.0248		82.3002	82.3002	2.9200e-003	2.6100e-003	83.1498
Total	0.0440	0.2249	0.3689	1.5600e-003	0.1137	1.5600e-003	0.1153	0.0309	1.4700e-003	0.0324		164.1124	164.1124	4.9300e-003	0.0146	168.5922

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Annual

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

Cordova Park 12 kV Underground Cable Replacement

Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.07	User Defined Unit	0.07	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 12 kV = 0.07 acres

Construction Phase - Phase I would occur concurrently and continuously over a three week duration.

Off-road Equipment - Applicant approved equipment list

Off-road Equipment - Based on prior SMUD 69kV underground cable project equipment list

Off-road Equipment - Applicant approved equipment list

Off-road Equipment - Applicant approved equipment list

Trips and VMT - Default number of workers assumed for all activities; 2 trucks assumed for a material haul truck and water truck

Grading - CalEEMod estimated grading = 0.5 acres

Vehicle Trips - No operational emissions will be analyzed.

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Annual

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

Construction Off-road Equipment Mitigation - The project would comply with SMAQMD Basic Construction Emissions Controls Practices (BMPs).

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	100.00	16.00
tblConstructionPhase	NumDays	1.00	16.00
tblGrading	AcresOfGrading	8.00	0.50
tblLandUse	LotAcreage	0.00	0.07
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	4.00	7.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	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
--	-----	-----	----	-----	---------------	--------------	------------	----------------	---------------	-------------	----------	-----------	-----------	-----	-----	------

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Annual

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

Year	tons/yr										MT/yr					
2022	0.0311	0.3141	0.2187	4.5000e-004	0.0499	0.0143	0.0642	0.0269	0.0133	0.0402	0.0000	39.7918	39.7918	0.0106	2.9000e-004	40.1428
Maximum	0.0311	0.3141	0.2187	4.5000e-004	0.0499	0.0143	0.0642	0.0269	0.0133	0.0402	0.0000	39.7918	39.7918	0.0106	2.9000e-004	40.1428

Mitigated Construction

	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
Year	tons/yr										MT/yr					
2022	0.0311	0.3141	0.2187	4.5000e-004	0.0231	0.0143	0.0374	0.0123	0.0133	0.0256	0.0000	39.7918	39.7918	0.0106	2.9000e-004	40.1427
Maximum	0.0311	0.3141	0.2187	4.5000e-004	0.0231	0.0143	0.0374	0.0123	0.0133	0.0256	0.0000	39.7918	39.7918	0.0106	2.9000e-004	40.1427

	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	53.62	0.00	41.68	54.29	0.00	36.33	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2022	9-30-2022	0.3388	0.3388
		Highest	0.3388	0.3388

3.0 Construction Detail

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Annual

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

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2022	7/22/2022	5	16	
2	Trenching	Trenching	7/1/2022	7/22/2022	5	16	
3	Cable Laying/Vaulting	Building Construction	7/1/2022	7/22/2022	5	16	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Cable Laying/Vaulting	Cranes	1	7.00	231	0.29
Cable Laying/Vaulting	Forklifts	1	8.00	89	0.20
Cable Laying/Vaulting	Generator Sets	1	8.00	84	0.74
Cable Laying/Vaulting	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Trenching	Excavators	1	8.00	158	0.38
Trenching	Graders	1	8.00	187	0.41
Trenching	Rubber Tired Dozers	1	8.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Cable Laying/Vaulting	Welders	1	8.00	46	0.45

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, 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
Site Preparation	2	5.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Cable Laying/Vaulting	5	0.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	4	10.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2022

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					0.0484	0.0000	0.0484	0.0265	0.0000	0.0265	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.0100e-003	0.0838	0.0466	9.0000e-005	4.0600e-003	4.0600e-003	4.0600e-003	3.7400e-003	3.7400e-003	3.7400e-003	0.0000	8.1884	8.1884	2.6500e-003	0.0000	8.2546
Total	8.0100e-003	0.0838	0.0466	9.0000e-005	0.0484	4.0600e-003	0.0525	0.0265	3.7400e-003	0.0303	0.0000	8.1884	8.1884	2.6500e-003	0.0000	8.2546

Unmitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, 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					
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	7.0000e-005	1.8400e-003	5.3000e-004	1.0000e-005	1.9000e-004	2.0000e-005	2.0000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.6143	0.6143	2.0000e-005	9.0000e-005	0.6415
Worker	1.2000e-004	8.0000e-005	1.0100e-003	0.0000	2.9000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2419	0.2419	1.0000e-005	1.0000e-005	0.2443
Total	1.9000e-004	1.9200e-003	1.5400e-003	1.0000e-005	4.8000e-004	2.0000e-005	5.0000e-004	1.3000e-004	2.0000e-005	1.5000e-004	0.0000	0.8562	0.8562	3.0000e-005	1.0000e-004	0.8858

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					0.0218	0.0000	0.0218	0.0119	0.0000	0.0119	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.0100e-003	0.0838	0.0466	9.0000e-005		4.0600e-003	4.0600e-003		3.7400e-003	3.7400e-003	0.0000	8.1884	8.1884	2.6500e-003	0.0000	8.2546
Total	8.0100e-003	0.0838	0.0466	9.0000e-005	0.0218	4.0600e-003	0.0259	0.0119	3.7400e-003	0.0157	0.0000	8.1884	8.1884	2.6500e-003	0.0000	8.2546

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Annual

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

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	7.0000e-005	1.8400e-003	5.3000e-004	1.0000e-005	1.8000e-004	2.0000e-005	1.9000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.6143	0.6143	2.0000e-005	9.0000e-005	0.6415
Worker	1.2000e-004	8.0000e-005	1.0100e-003	0.0000	2.7000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2419	0.2419	1.0000e-005	1.0000e-005	0.2443
Total	1.9000e-004	1.9200e-003	1.5400e-003	1.0000e-005	4.5000e-004	2.0000e-005	4.6000e-004	1.2000e-004	2.0000e-005	1.4000e-004	0.0000	0.8562	0.8562	3.0000e-005	1.0000e-004	0.8858

3.3 Trenching - 2022

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	0.0130	0.1400	0.0864	1.9000e-004		6.0800e-003	6.0800e-003		5.6000e-003	5.6000e-003	0.0000	16.4713	16.4713	5.3300e-003	0.0000	16.6045
Total	0.0130	0.1400	0.0864	1.9000e-004		6.0800e-003	6.0800e-003		5.6000e-003	5.6000e-003	0.0000	16.4713	16.4713	5.3300e-003	0.0000	16.6045

Unmitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, 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					
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	7.0000e-005	1.8400e-003	5.3000e-004	1.0000e-005	1.9000e-004	2.0000e-005	2.0000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.6143	0.6143	2.0000e-005	9.0000e-005	0.6415
Worker	2.5000e-004	1.6000e-004	2.0200e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4838	0.4838	2.0000e-005	1.0000e-005	0.4886
Total	3.2000e-004	2.0000e-003	2.5500e-003	2.0000e-005	7.8000e-004	2.0000e-005	7.9000e-004	2.1000e-004	2.0000e-005	2.3000e-004	0.0000	1.0981	1.0981	4.0000e-005	1.0000e-004	1.1301

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	0.0130	0.1400	0.0864	1.9000e-004		6.0800e-003	6.0800e-003		5.6000e-003	5.6000e-003	0.0000	16.4713	16.4713	5.3300e-003	0.0000	16.6045
Total	0.0130	0.1400	0.0864	1.9000e-004		6.0800e-003	6.0800e-003		5.6000e-003	5.6000e-003	0.0000	16.4713	16.4713	5.3300e-003	0.0000	16.6045

Mitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, 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					
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	7.0000e-005	1.8400e-003	5.3000e-004	1.0000e-005	1.8000e-004	2.0000e-005	1.9000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.6143	0.6143	2.0000e-005	9.0000e-005	0.6415
Worker	2.5000e-004	1.6000e-004	2.0200e-003	1.0000e-005	5.4000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4838	0.4838	2.0000e-005	1.0000e-005	0.4886
Total	3.2000e-004	2.0000e-003	2.5500e-003	2.0000e-005	7.2000e-004	2.0000e-005	7.4000e-004	2.0000e-004	2.0000e-005	2.2000e-004	0.0000	1.0981	1.0981	4.0000e-005	1.0000e-004	1.1301

3.4 Cable Laying/Vaulting - 2022

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	9.5300e-003	0.0846	0.0811	1.5000e-004		4.0900e-003	4.0900e-003		3.9000e-003	3.9000e-003	0.0000	12.5635	12.5635	2.5100e-003	0.0000	12.6262
Total	9.5300e-003	0.0846	0.0811	1.5000e-004		4.0900e-003	4.0900e-003		3.9000e-003	3.9000e-003	0.0000	12.5635	12.5635	2.5100e-003	0.0000	12.6262

Unmitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, 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					
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	7.0000e-005	1.8400e-003	5.3000e-004	1.0000e-005	1.9000e-004	2.0000e-005	2.0000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.6143	0.6143	2.0000e-005	9.0000e-005	0.6415
Worker	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
Total	7.0000e-005	1.8400e-003	5.3000e-004	1.0000e-005	1.9000e-004	2.0000e-005	2.0000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.6143	0.6143	2.0000e-005	9.0000e-005	0.6415

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	9.5300e-003	0.0846	0.0811	1.5000e-004		4.0900e-003	4.0900e-003		3.9000e-003	3.9000e-003	0.0000	12.5634	12.5634	2.5100e-003	0.0000	12.6262
Total	9.5300e-003	0.0846	0.0811	1.5000e-004		4.0900e-003	4.0900e-003		3.9000e-003	3.9000e-003	0.0000	12.5634	12.5634	2.5100e-003	0.0000	12.6262

Mitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, 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					
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	7.0000e-005	1.8400e-003	5.3000e-004	1.0000e-005	1.8000e-004	2.0000e-005	1.9000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.6143	0.6143	2.0000e-005	9.0000e-005	0.6415
Worker	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
Total	7.0000e-005	1.8400e-003	5.3000e-004	1.0000e-005	1.8000e-004	2.0000e-005	1.9000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.6143	0.6143	2.0000e-005	9.0000e-005	0.6415

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Summer

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

**Cordova Park 12 kV Underground Cable Replacement
Sacramento County, Summer**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.07	User Defined Unit	0.07	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 12 kV = 0.07 acres

Construction Phase - Phase I would occur concurrently and continuously over a three week duration.

Off-road Equipment - Applicant approved equipment list

Off-road Equipment - Based on prior SMUD 69kV underground cable project equipment list

Off-road Equipment - Applicant approved equipment list

Off-road Equipment - Applicant approved equipment list

Trips and VMT - Default number of workers assumed for all activities; 2 trucks assumed for a material haul truck and water truck

Grading - CalEEMod estimated grading = 0.5 acres

Vehicle Trips - No operational emissions will be analyzed.

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Summer

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

Year	lb/day										lb/day					
2022	3.8921	39.2277	27.3967	0.0570	6.2416	1.7866	8.0283	3.3649	1.6608	5.0257	0.0000	5,492.5023	5,492.5023	1.4545	0.0400	5,540.7915
Maximum	3.8921	39.2277	27.3967	0.0570	6.2416	1.7866	8.0283	3.3649	1.6608	5.0257	0.0000	5,492.5023	5,492.5023	1.4545	0.0400	5,540.7915

Mitigated Construction

	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
Year	lb/day										lb/day					
2022	3.8921	39.2277	27.3967	0.0570	2.8977	1.7866	4.6843	1.5390	1.6608	3.1997	0.0000	5,492.5023	5,492.5023	1.4545	0.0400	5,540.7915
Maximum	3.8921	39.2277	27.3967	0.0570	2.8977	1.7866	4.6843	1.5390	1.6608	3.1997	0.0000	5,492.5023	5,492.5023	1.4545	0.0400	5,540.7915

	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	53.57	0.00	41.65	54.26	0.00	36.33	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
--------------	------------	------------	------------	----------	---------------	----------	-------------------

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Summer

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

Site Preparation	2	5.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Cable Laying/Vaulting	5	0.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	4	10.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2022

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	lb/day										lb/day					
Fugitive Dust					6.0552	0.0000	6.0552	3.3138	0.0000	3.3138			0.0000			0.0000
Off-Road	1.0018	10.4693	5.8199	0.0116		0.5075	0.5075		0.4669	0.4669		1,128.2743	1,128.2743	0.3649		1,137.3970
Total	1.0018	10.4693	5.8199	0.0116	6.0552	0.5075	6.5627	3.3138	0.4669	3.7807		1,128.2743	1,128.2743	0.3649		1,137.3970

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
--	-----	-----	----	-----	---------------	--------------	------------	----------------	---------------	-------------	----------	-----------	-----------	-----	-----	------

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Summer

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

Category	lb/day										lb/day					
	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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0241	2.1200e-003	0.0262	6.9400e-003	2.0200e-003	8.9600e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	0.0181	9.1500e-003	0.1479	3.6000e-004	0.0380	2.1000e-004	0.0382	0.0101	1.9000e-004	0.0103		36.5376	36.5376	1.0800e-003	9.4000e-004	36.8461
Total	0.0268	0.2270	0.2135	1.1500e-003	0.0621	2.3300e-003	0.0645	0.0170	2.2100e-003	0.0192		121.1852	121.1852	3.2900e-003	0.0133	125.2431

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	lb/day										lb/day					
Fugitive Dust					2.7249	0.0000	2.7249	1.4912	0.0000	1.4912			0.0000			0.0000
Off-Road	1.0018	10.4693	5.8199	0.0116		0.5075	0.5075		0.4669	0.4669	0.0000	1,128.2743	1,128.2743	0.3649		1,137.3970
Total	1.0018	10.4693	5.8199	0.0116	2.7249	0.5075	3.2323	1.4912	0.4669	1.9581	0.0000	1,128.2743	1,128.2743	0.3649		1,137.3970

Mitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Summer

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0226	2.1200e-003	0.0247	6.5600e-003	2.0200e-003	8.5800e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	0.0181	9.1500e-003	0.1479	3.6000e-004	0.0351	2.1000e-004	0.0353	9.3600e-003	1.9000e-004	9.5500e-003		36.5376	36.5376	1.0800e-003	9.4000e-004	36.8461
Total	0.0268	0.2270	0.2135	1.1500e-003	0.0576	2.3300e-003	0.0599	0.0159	2.2100e-003	0.0181		121.1852	121.1852	3.2900e-003	0.0133	125.2431

3.3 Trenching - 2022

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	lb/day										lb/day					
Off-Road	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998		2,269.5685	2,269.5685	0.7340		2,287.9191
Total	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998		2,269.5685	2,269.5685	0.7340		2,287.9191

Unmitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Summer

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0241	2.1200e-003	0.0262	6.9400e-003	2.0200e-003	8.9600e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	0.0362	0.0183	0.2958	7.2000e-004	0.0761	4.1000e-004	0.0765	0.0202	3.8000e-004	0.0206		73.0752	73.0752	2.1700e-003	1.8900e-003	73.6921
Total	0.0449	0.2362	0.3614	1.5100e-003	0.1002	2.5300e-003	0.1027	0.0271	2.4000e-003	0.0295		157.7228	157.7228	4.3800e-003	0.0143	162.0891

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	lb/day										lb/day					
Off-Road	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998	0.0000	2,269.5685	2,269.5685	0.7340		2,287.9191
Total	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998	0.0000	2,269.5685	2,269.5685	0.7340		2,287.9191

Mitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Summer

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0226	2.1200e-003	0.0247	6.5600e-003	2.0200e-003	8.5800e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	0.0362	0.0183	0.2958	7.2000e-004	0.0701	4.1000e-004	0.0705	0.0187	3.8000e-004	0.0191		73.0752	73.0752	2.1700e-003	1.8900e-003	73.6921
Total	0.0449	0.2362	0.3614	1.5100e-003	0.0927	2.5300e-003	0.0952	0.0253	2.4000e-003	0.0277		157.7228	157.7228	4.3800e-003	0.0143	162.0891

3.4 Cable Laying/Vaulting - 2022

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	lb/day										lb/day					
Off-Road	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875		1,731.1038	1,731.1038	0.3457		1,739.7462
Total	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875		1,731.1038	1,731.1038	0.3457		1,739.7462

Unmitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Summer

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0241	2.1200e-003	0.0262	6.9400e-003	2.0200e-003	8.9600e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	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
Total	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0241	2.1200e-003	0.0262	6.9400e-003	2.0200e-003	8.9600e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970

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	lb/day										lb/day					
Off-Road	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875	0.0000	1,731.1038	1,731.1038	0.3457		1,739.7462
Total	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875	0.0000	1,731.1038	1,731.1038	0.3457		1,739.7462

Mitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Summer

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0226	2.1200e-003	0.0247	6.5600e-003	2.0200e-003	8.5800e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	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
Total	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0226	2.1200e-003	0.0247	6.5600e-003	2.0200e-003	8.5800e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Winter

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

Cordova Park 12 kV Underground Cable Replacement

Sacramento County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.07	User Defined Unit	0.07	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 12 kV = 0.07 acres

Construction Phase - Phase I would occur concurrently and continuously over a three week duration.

Off-road Equipment - Applicant approved equipment list

Off-road Equipment - Based on prior SMUD 69kV underground cable project equipment list

Off-road Equipment - Applicant approved equipment list

Off-road Equipment - Applicant approved equipment list

Trips and VMT - Default number of workers assumed for all activities; 2 trucks assumed for a material haul truck and water truck

Grading - CalEEMod estimated grading = 0.5 acres

Vehicle Trips - No operational emissions will be analyzed.

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Winter

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

1	Site Preparation	Site Preparation	7/1/2022	7/22/2022	5	16
2	Trenching	Trenching	7/1/2022	7/22/2022	5	16
3	Cable Laying/Vaulting	Building Construction	7/1/2022	7/22/2022	5	16

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Cable Laying/Vaulting	Cranes	1	7.00	231	0.29
Cable Laying/Vaulting	Forklifts	1	8.00	89	0.20
Cable Laying/Vaulting	Generator Sets	1	8.00	84	0.74
Cable Laying/Vaulting	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Trenching	Excavators	1	8.00	156	0.38
Trenching	Graders	1	8.00	187	0.41
Trenching	Rubber Tired Dozers	1	8.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Cable Laying/Vaulting	Welders	1	8.00	46	0.45

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
------------	-------------------------	--------------------	--------------------	---------------------	--------------------	--------------------	---------------------	----------------------	----------------------	-----------------------

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Winter

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

Site Preparation	2	5.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Cable Laying/Vaulting	5	0.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	4	10.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2022

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	lb/day										lb/day					
Fugitive Dust					6.0552	0.0000	6.0552	3.3138	0.0000	3.3138			0.0000			0.0000
Off-Road	1.0018	10.4693	5.8199	0.0116		0.5075	0.5075		0.4669	0.4669		1,128.2743	1,128.2743	0.3649		1,137.3970
Total	1.0018	10.4693	5.8199	0.0116	6.0552	0.5075	6.5627	3.3138	0.4669	3.7807		1,128.2743	1,128.2743	0.3649		1,137.3970

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
--	-----	-----	----	-----	---------------	--------------	------------	----------------	---------------	-------------	----------	-----------	-----------	-----	-----	------

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Winter

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

Category	lb/day										lb/day					
	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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0241	2.1300e-003	0.0262	6.9400e-003	2.0400e-003	8.9800e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	0.0160	0.0112	0.1281	3.2000e-004	0.0380	2.1000e-004	0.0382	0.0101	1.9000e-004	0.0103		32.4890	32.4890	1.2400e-003	1.0800e-003	32.8430
Total	0.0245	0.2453	0.1966	1.1100e-003	0.0621	2.3400e-003	0.0645	0.0170	2.2300e-003	0.0193		117.1268	117.1268	3.4400e-003	0.0135	121.2361

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	lb/day										lb/day					
Fugitive Dust					2.7249	0.0000	2.7249	1.4912	0.0000	1.4912			0.0000			0.0000
Off-Road	1.0018	10.4693	5.8199	0.0116		0.5075	0.5075		0.4669	0.4669	0.0000	1,128.2743	1,128.2743	0.3649		1,137.3970
Total	1.0018	10.4693	5.8199	0.0116	2.7249	0.5075	3.2323	1.4912	0.4669	1.9581	0.0000	1,128.2743	1,128.2743	0.3649		1,137.3970

Mitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Winter

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0226	2.1300e-003	0.0247	6.5600e-003	2.0400e-003	8.6000e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	0.0160	0.0112	0.1281	3.2000e-004	0.0351	2.1000e-004	0.0353	9.3600e-003	1.9000e-004	9.5500e-003		32.4890	32.4890	1.2400e-003	1.0800e-003	32.8430
Total	0.0245	0.2453	0.1966	1.1100e-003	0.0576	2.3400e-003	0.0600	0.0159	2.2300e-003	0.0182		117.1268	117.1268	3.4400e-003	0.0135	121.2361

3.3 Trenching - 2022

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	lb/day										lb/day					
Off-Road	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998		2,269.5685	2,269.5685	0.7340		2,287.9191
Total	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998		2,269.5685	2,269.5685	0.7340		2,287.9191

Unmitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Winter

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0241	2.1300e-003	0.0262	6.9400e-003	2.0400e-003	8.9800e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	0.0320	0.0225	0.2562	6.4000e-004	0.0761	4.1000e-004	0.0765	0.0202	3.8000e-004	0.0206		64.9780	64.9780	2.4800e-003	2.1700e-003	65.6860
Total	0.0405	0.2565	0.3247	1.4300e-003	0.1002	2.5400e-003	0.1027	0.0271	2.4200e-003	0.0295		149.6158	149.6158	4.6800e-003	0.0146	154.0791

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	lb/day										lb/day					
Off-Road	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998	0.0000	2,269.5685	2,269.5685	0.7340		2,287.9191
Total	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998	0.0000	2,269.5685	2,269.5685	0.7340		2,287.9191

Mitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Winter

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0226	2.1300e-003	0.0247	6.5600e-003	2.0400e-003	8.6000e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	0.0320	0.0225	0.2562	6.4000e-004	0.0701	4.1000e-004	0.0705	0.0187	3.8000e-004	0.0191		64.9780	64.9780	2.4800e-003	2.1700e-003	65.6860
Total	0.0405	0.2565	0.3247	1.4300e-003	0.0927	2.5400e-003	0.0952	0.0253	2.4200e-003	0.0277		149.6158	149.6158	4.6800e-003	0.0146	154.0791

3.4 Cable Laying/Vaulting - 2022

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	lb/day										lb/day					
Off-Road	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875		1,731.1038	1,731.1038	0.3457		1,739.7462
Total	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875		1,731.1038	1,731.1038	0.3457		1,739.7462

Unmitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Winter

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0241	2.1300e-003	0.0262	6.9400e-003	2.0400e-003	8.9800e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	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
Total	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0241	2.1300e-003	0.0262	6.9400e-003	2.0400e-003	8.9800e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931

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	lb/day										lb/day					
Off-Road	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875	0.0000	1,731.1038	1,731.1038	0.3457		1,739.7462
Total	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875	0.0000	1,731.1038	1,731.1038	0.3457		1,739.7462

Mitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Sacramento County, Winter

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0226	2.1300e-003	0.0247	6.5600e-003	2.0400e-003	8.6000e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	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
Total	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0226	2.1300e-003	0.0247	6.5600e-003	2.0400e-003	8.6000e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Annual

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

Cordova Park 12 kV Underground Cable Replacement - Paving

Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.07	User Defined Unit	0.07	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 12 kv = 0.07 acres

Construction Phase - Phase I would occur concurrently and continuously over a three week duration.

Off-road Equipment - Applicant approved equipment list

Trips and VMT - Default number of workers assumed for all activities; 2 trucks assumed for a material haul truck and water truck

Construction Off-road Equipment Mitigation - SMAQMD Basic Construction Emissions Controls Practices (BMPs).

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	16.00

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Annual

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

tblLandUse	LotAcreage	0.00	0.07
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	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
Year	tons/yr										MT/yr					
2022	6.4700e-003	0.0622	0.0812	1.3000e-004	9.5000e-004	3.1000e-003	4.0500e-003	2.6000e-004	2.8600e-003	3.1200e-003	0.0000	11.7155	11.7155	3.3600e-003	1.1000e-004	11.8321
Maximum	6.4700e-003	0.0622	0.0812	1.3000e-004	9.5000e-004	3.1000e-003	4.0500e-003	2.6000e-004	2.8600e-003	3.1200e-003	0.0000	11.7155	11.7155	3.3600e-003	1.1000e-004	11.8321

Mitigated Construction

	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
Year	tons/yr										MT/yr					

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Annual

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

2022	6.4700e-003	0.0622	0.0812	1.3000e-004	8.8000e-004	3.1000e-003	3.9800e-003	2.4000e-004	2.8600e-003	3.1000e-003	0.0000	11.7155	11.7155	3.3600e-003	1.1000e-004	11.8321
Maximum	6.4700e-003	0.0622	0.0812	1.3000e-004	8.8000e-004	3.1000e-003	3.9800e-003	2.4000e-004	2.8600e-003	3.1000e-003	0.0000	11.7155	11.7155	3.3600e-003	1.1000e-004	11.8321

	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	7.37	0.00	1.73	7.69	0.00	0.64	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2022	9-30-2022	0.0674	0.0674
		Highest	0.0674	0.0674

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Paving	Paving	7/1/2022	7/22/2022	5	16	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Cement and Mortar Mixers	1	6.00	9	0.56

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Annual

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

Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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
Paving	5	13.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Paving - 2022

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	6.0800e-003	0.0601	0.0781	1.2000e-004		3.0800e-003	3.0800e-003		2.8400e-003	2.8400e-003	0.0000	10.4722	10.4722	3.3300e-003	0.0000	10.5554
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.0800e-003	0.0601	0.0781	1.2000e-004		3.0800e-003	3.0800e-003		2.8400e-003	2.8400e-003	0.0000	10.4722	10.4722	3.3300e-003	0.0000	10.5554

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Annual

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

Total	6.0800e-003	0.0601	0.0781	1.2000e-004		3.0800e-003	3.0800e-003		2.8400e-003	2.8400e-003	0.0000	10.4722	10.4722	3.3300e-003	0.0000	10.5554
-------	-------------	--------	--------	-------------	--	-------------	-------------	--	-------------	-------------	--------	---------	---------	-------------	--------	---------

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	7.0000e-005	1.8400e-003	5.3000e-004	1.0000e-005	1.8000e-004	2.0000e-005	1.9000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.6143	0.6143	2.0000e-005	9.0000e-005	0.6415
Worker	3.2000e-004	2.1000e-004	2.6200e-003	1.0000e-005	7.0000e-004	0.0000	7.1000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6290	0.6290	2.0000e-005	2.0000e-005	0.6351
Total	3.9000e-004	2.0500e-003	3.1500e-003	2.0000e-005	8.8000e-004	2.0000e-005	9.0000e-004	2.4000e-004	2.0000e-005	2.6000e-004	0.0000	1.2433	1.2433	4.0000e-005	1.1000e-004	1.2767

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Summer

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

**Cordova Park 12 kV Underground Cable Replacement - Paving
Sacramento County, Summer**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.07	User Defined Unit	0.07	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 12 kv = 0.07 acres

Construction Phase - Phase I would occur concurrently and continuously over a three week duration.

Off-road Equipment - Applicant approved equipment list

Trips and VMT - Default number of workers assumed for all activities; 2 trucks assumed for a material haul truck and water truck

Construction Off-road Equipment Mitigation - SMAQMD Basic Construction Emissions Controls Practices (BMPs).

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	16.00

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Summer

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

tblLandUse	LotAcreage	0.00	0.07
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	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
Year	lb/day										lb/day					
2022	0.8159	7.7559	10.2096	0.0168	0.1230	0.3875	0.5105	0.0332	0.3574	0.3906	0.0000	1,622.6017	1,622.6017	0.4634	0.0149	1,638.6121
Maximum	0.8159	7.7559	10.2096	0.0168	0.1230	0.3875	0.5105	0.0332	0.3574	0.3906	0.0000	1,622.6017	1,622.6017	0.4634	0.0149	1,638.6121

Mitigated Construction

	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
Year	lb/day										lb/day					

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Summer

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

2022	0.8159	7.7559	10.2096	0.0168	0.1137	0.3875	0.5012	0.0309	0.3574	0.3883	0.0000	1,622.6017	1,622.6017	0.4634	0.0149	1,638.6121
Maximum	0.8159	7.7559	10.2096	0.0168	0.1137	0.3875	0.5012	0.0309	0.3574	0.3883	0.0000	1,622.6017	1,622.6017	0.4634	0.0149	1,638.6121

	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	7.54	0.00	1.82	6.87	0.00	0.58	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	Paving	Paving	7/1/2022	7/22/2022	5	16	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	8.00	80	0.38

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Summer

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

Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
--------	---------------------------	---	------	----	------

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
Paving	5	13.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Paving - 2022

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	lb/day										lb/day					
Off-Road	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549		1,442.9563	1,442.9563	0.4584		1,454.4154
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549		1,442.9563	1,442.9563	0.4584		1,454.4154

Unmitigated Construction Off-Site

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Summer

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0241	2.1200e-003	0.0262	6.9400e-003	2.0200e-003	8.9600e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	0.0471	0.0238	0.3845	9.3000e-004	0.0989	5.4000e-004	0.0994	0.0262	4.9000e-004	0.0267		94.9977	94.9977	2.8200e-003	2.4500e-003	95.7998
Total	0.0558	0.2417	0.4501	1.7200e-003	0.1230	2.6600e-003	0.1257	0.0332	2.5100e-003	0.0357		179.6454	179.6454	5.0300e-003	0.0149	184.1968

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	lb/day										lb/day					
Off-Road	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549	0.0000	1,442.9563	1,442.9563	0.4584		1,454.4154
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549	0.0000	1,442.9563	1,442.9563	0.4584		1,454.4154

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Summer

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

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0226	2.1200e-003	0.0247	6.5600e-003	2.0200e-003	8.5800e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	0.0471	0.0238	0.3845	9.3000e-004	0.0912	5.4000e-004	0.0917	0.0243	4.9000e-004	0.0248		94.9977	94.9977	2.8200e-003	2.4500e-003	95.7998
Total	0.0558	0.2417	0.4501	1.7200e-003	0.1137	2.6600e-003	0.1164	0.0309	2.5100e-003	0.0334		179.6454	179.6454	5.0300e-003	0.0149	184.1968

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Winter

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

**Cordova Park 12 kV Underground Cable Replacement - Paving
Sacramento County, Winter**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.07	User Defined Unit	0.07	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 12 kv = 0.07 acres

Construction Phase - Phase I would occur concurrently and continuously over a three week duration.

Off-road Equipment - Applicant approved equipment list

Trips and VMT - Default number of workers assumed for all activities; 2 trucks assumed for a material haul truck and water truck

Construction Off-road Equipment Mitigation - SMAQMD Basic Construction Emissions Controls Practices (BMPs).

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	16.00

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Winter

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

tblLandUse	LotAcreage	0.00	0.07
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	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
Year	lb/day										lb/day					
2022	0.8103	7.7774	10.1611	0.0167	0.1230	0.3875	0.5105	0.0332	0.3574	0.3906	0.0000	1,612.0656	1,612.0656	0.4638	0.0152	1,628.2002
Maximum	0.8103	7.7774	10.1611	0.0167	0.1230	0.3875	0.5105	0.0332	0.3574	0.3906	0.0000	1,612.0656	1,612.0656	0.4638	0.0152	1,628.2002

Mitigated Construction

	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
Year	lb/day										lb/day					

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Winter

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

2022	0.8103	7.7774	10.1611	0.0167	0.1137	0.3875	0.5012	0.0309	0.3574	0.3883	0.0000	1,612.0656	1,612.0656	0.4638	0.0152	1,628.2002
Maximum	0.8103	7.7774	10.1611	0.0167	0.1137	0.3875	0.5012	0.0309	0.3574	0.3883	0.0000	1,612.0656	1,612.0656	0.4638	0.0152	1,628.2002

	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	7.54	0.00	1.82	6.87	0.00	0.58	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	Paving	Paving	7/1/2022	7/22/2022	5	16	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Winter

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

Paving	Rollers	1	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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
Paving	5	13.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Paving - 2022

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	lb/day										lb/day					
Off-Road	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549		1,442.9563	1,442.9563	0.4584		1,454.4154
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549		1,442.9563	1,442.9563	0.4584		1,454.4154

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Winter

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

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0241	2.1300e-003	0.0262	6.9400e-003	2.0400e-003	8.9800e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	0.0416	0.0292	0.3331	8.3000e-004	0.0989	5.4000e-004	0.0994	0.0262	4.9000e-004	0.0267		84.4715	84.4715	3.2300e-003	2.8200e-003	85.3918
Total	0.0501	0.2632	0.4016	1.6200e-003	0.1230	2.6700e-003	0.1257	0.0332	2.5300e-003	0.0357		169.1092	169.1092	5.4300e-003	0.0152	173.7848

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	lb/day										lb/day					
Off-Road	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549	0.0000	1,442.9563	1,442.9563	0.4584		1,454.4154
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549	0.0000	1,442.9563	1,442.9563	0.4584		1,454.4154

Cordova Park 12 kV Underground Cable Replacement - Paving - Sacramento County, Winter

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

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0226	2.1300e-003	0.0247	6.5600e-003	2.0400e-003	8.6000e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	0.0416	0.0292	0.3331	8.3000e-004	0.0912	5.4000e-004	0.0917	0.0243	4.9000e-004	0.0248		84.4715	84.4715	3.2300e-003	2.8200e-003	85.3918
Total	0.0501	0.2632	0.4016	1.6200e-003	0.1137	2.6700e-003	0.1164	0.0309	2.5300e-003	0.0334		169.1092	169.1092	5.4300e-003	0.0152	173.7848

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Annual

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

Cordova Park 69 kV Underground Cable Replacement

Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	19.01	User Defined Unit	19.01	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 69 kV = 19.01 acres

Construction Phase - 12 month construction schedule

Off-road Equipment - Applicant approved equipment list

Off-road Equipment - Applicant approved equipment list

Off-road Equipment - Applicant approved equipment list

Trips and VMT - Default number of workers assumed for all activities; 2 trucks assumed for a material haul truck and water truck

Grading - CalEEMod estimated grading = 15 acres

Construction Off-road Equipment Mitigation - The project would comply with SMAQMD Basic Construction Emissions Controls Practices (BMPs).

Table Name	Column Name	Default Value	New Value
------------	-------------	---------------	-----------

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Annual

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

tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	300.00	260.00
tblConstructionPhase	NumDays	10.00	260.00
tblGrading	AcresOfGrading	130.00	15.00
tblLandUse	LotAcreage	0.00	19.01
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	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
Year	tons/yr										MT/yr					
2022	0.2233	2.2578	1.5718	3.2700e-003	0.3646	0.1027	0.4673	0.1941	0.0955	0.2896	0.0000	286.0038	286.0038	0.0759	2.1000e-003	288.5262
2023	0.2469	2.4590	1.8996	4.1200e-003	0.4576	0.1067	0.5644	0.2445	0.0993	0.3437	0.0000	359.9153	359.9153	0.0953	2.5500e-003	363.0589
Maximum	0.2469	2.4590	1.8996	4.1200e-003	0.4576	0.1067	0.5644	0.2445	0.0993	0.3437	0.0000	359.9153	359.9153	0.0953	2.5500e-003	363.0589

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Annual

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

Mitigated Construction

	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
Year	tons/yr										MT/yr					
2022	0.2233	2.2578	1.5718	3.2700e-003	0.1690	0.1027	0.2718	0.0887	0.0955	0.1842	0.0000	286.0035	286.0035	0.0759	2.1000e-003	288.5259
2023	0.2469	2.4590	1.8996	4.1200e-003	0.2122	0.1067	0.3189	0.1118	0.0993	0.2110	0.0000	359.9149	359.9149	0.0953	2.5500e-003	363.0585
Maximum	0.2469	2.4590	1.8996	4.1200e-003	0.2122	0.1067	0.3189	0.1118	0.0993	0.2110	0.0000	359.9149	359.9149	0.0953	2.5500e-003	363.0585

	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	53.64	0.00	42.75	54.29	0.00	37.59	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2022	9-30-2022	1.0472	1.0472
2	10-1-2022	12-31-2022	1.4184	1.4184
3	1-1-2023	3-31-2023	1.2002	1.2002
4	4-1-2023	6-30-2023	1.2122	1.2122
5	7-1-2023	9-30-2023	0.2797	0.2797
		Highest	1.4184	1.4184

3.0 Construction Detail

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Annual

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

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/25/2022	7/21/2023	5	260	
2	Trenching	Trenching	7/25/2022	7/21/2023	5	260	
3	Cable Laying/Vaulting	Building Construction	7/25/2022	7/21/2023	5	260	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Cable Laying/Vaulting	Cranes	1	7.00	231	0.29
Cable Laying/Vaulting	Excavators	0	8.00	158	0.38
Cable Laying/Vaulting	Forklifts	1	8.00	89	0.20
Cable Laying/Vaulting	Generator Sets	1	8.00	84	0.74
Cable Laying/Vaulting	Graders	0	8.00	187	0.41
Cable Laying/Vaulting	Rubber Tired Dozers	0	8.00	247	0.40
Cable Laying/Vaulting	Scrapers	0	8.00	367	0.48
Cable Laying/Vaulting	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Cable Laying/Vaulting	Welders	1	8.00	46	0.45
Trenching	Cranes	0	7.00	231	0.29
Trenching	Excavators	1	8.00	158	0.38

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Annual

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

Off-Road	0.0576	0.6020	0.3347	6.7000e-004		0.0292	0.0292		0.0269	0.0269	0.0000	58.8543	58.8543	0.0190	0.0000	59.3302
Total	0.0576	0.6020	0.3347	6.7000e-004	0.3542	0.0292	0.3834	0.1912	0.0269	0.2181	0.0000	58.8543	58.8543	0.0190	0.0000	59.3302

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	4.9000e-004	0.0132	3.8400e-003	5.0000e-005	1.3500e-003	1.2000e-004	1.4700e-003	3.9000e-004	1.2000e-004	5.1000e-004	0.0000	4.4153	4.4153	1.2000e-004	6.5000e-004	4.6110
Worker	8.9000e-004	5.8000e-004	7.2500e-003	2.0000e-005	2.1100e-003	1.0000e-005	2.1200e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.7387	1.7387	6.0000e-005	5.0000e-005	1.7558
Total	1.3800e-003	0.0138	0.0111	7.0000e-005	3.4600e-003	1.3000e-004	3.5900e-003	9.5000e-004	1.3000e-004	1.0800e-003	0.0000	6.1540	6.1540	1.8000e-004	7.0000e-004	6.3668

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					

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Annual

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

Fugitive Dust					0.1594	0.0000	0.1594	0.0860	0.0000	0.0860	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0576	0.6020	0.3347	6.7000e-004		0.0292	0.0292		0.0269	0.0269	0.0000	58.8542	58.8542	0.0190	0.0000	59.3301
Total	0.0576	0.6020	0.3347	6.7000e-004	0.1594	0.0292	0.1886	0.0860	0.0269	0.1129	0.0000	58.8542	58.8542	0.0190	0.0000	59.3301

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	4.9000e-004	0.0132	3.8400e-003	5.0000e-005	1.2600e-003	1.2000e-004	1.3800e-003	3.7000e-004	1.2000e-004	4.9000e-004	0.0000	4.4153	4.4153	1.2000e-004	6.5000e-004	4.6110
Worker	8.9000e-004	5.8000e-004	7.2500e-003	2.0000e-005	1.9500e-003	1.0000e-005	1.9600e-003	5.2000e-004	1.0000e-005	5.3000e-004	0.0000	1.7387	1.7387	6.0000e-005	5.0000e-005	1.7558
Total	1.3800e-003	0.0138	0.0111	7.0000e-005	3.2100e-003	1.3000e-004	3.3400e-003	8.9000e-004	1.3000e-004	1.0200e-003	0.0000	6.1540	6.1540	1.8000e-004	7.0000e-004	6.3668

3.2 Site Preparation - 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
--	-----	-----	----	-----	---------------	--------------	------------	----------------	---------------	-------------	----------	-----------	-----------	-----	-----	------

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Annual

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

Category	tons/yr										MT/yr					
	Fugitive Dust					0.4446	0.0000	0.4446	0.2409	0.0000	0.2409	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0606	0.6281	0.3870	8.4000e-004		0.0288	0.0288		0.0265	0.0265	0.0000	74.2275	74.2275	0.0240	0.0000	74.8277
Total	0.0606	0.6281	0.3870	8.4000e-004	0.4446	0.0288	0.4733	0.2409	0.0265	0.2673	0.0000	74.2275	74.2275	0.0240	0.0000	74.8277

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	3.8000e-004	0.0141	4.2600e-003	6.0000e-005	1.7000e-003	8.0000e-005	1.7700e-003	4.9000e-004	7.0000e-005	5.6000e-004	0.0000	5.3786	5.3786	1.3000e-004	7.9000e-004	5.6171
Worker	1.0400e-003	6.4000e-004	8.4500e-003	2.0000e-005	2.6600e-003	1.0000e-005	2.6800e-003	7.1000e-004	1.0000e-005	7.2000e-004	0.0000	2.1358	2.1358	7.0000e-005	6.0000e-005	2.1557
Total	1.4200e-003	0.0148	0.0127	8.0000e-005	4.3600e-003	9.0000e-005	4.4500e-003	1.2000e-003	8.0000e-005	1.2800e-003	0.0000	7.5144	7.5144	2.0000e-004	8.5000e-004	7.7728

Mitigated Construction On-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, 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					
Fugitive Dust					0.2001	0.0000	0.2001	0.1084	0.0000	0.1084	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0606	0.6281	0.3870	8.4000e-004		0.0288	0.0288		0.0265	0.0265	0.0000	74.2274	74.2274	0.0240	0.0000	74.8276
Total	0.0606	0.6281	0.3870	8.4000e-004	0.2001	0.0288	0.2288	0.1084	0.0265	0.1348	0.0000	74.2274	74.2274	0.0240	0.0000	74.8276

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	3.8000e-004	0.0141	4.2600e-003	6.0000e-005	1.5900e-003	8.0000e-005	1.6700e-003	4.6000e-004	7.0000e-005	5.4000e-004	0.0000	5.3786	5.3786	1.3000e-004	7.9000e-004	5.6171
Worker	1.0400e-003	6.4000e-004	8.4500e-003	2.0000e-005	2.4600e-003	1.0000e-005	2.4700e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	2.1358	2.1358	7.0000e-005	6.0000e-005	2.1557
Total	1.4200e-003	0.0148	0.0127	8.0000e-005	4.0500e-003	9.0000e-005	4.1400e-003	1.1200e-003	8.0000e-005	1.2100e-003	0.0000	7.5144	7.5144	2.0000e-004	8.5000e-004	7.7728

3.3 Trenching - 2022

Unmitigated Construction On-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, 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					
Off-Road	0.0931	1.0065	0.6208	1.3500e-003		0.0437	0.0437		0.0402	0.0402	0.0000	118.3878	118.3878	0.0383	0.0000	119.3450
Total	0.0931	1.0065	0.6208	1.3500e-003		0.0437	0.0437		0.0402	0.0402	0.0000	118.3878	118.3878	0.0383	0.0000	119.3450

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	4.9000e-004	0.0132	3.8400e-003	5.0000e-005	1.3500e-003	1.2000e-004	1.4700e-003	3.9000e-004	1.2000e-004	5.1000e-004	0.0000	4.4153	4.4153	1.2000e-004	6.5000e-004	4.6110
Worker	1.7700e-003	1.1500e-003	0.0145	4.0000e-005	4.2200e-003	2.0000e-005	4.2500e-003	1.1200e-003	2.0000e-005	1.1500e-003	0.0000	3.4774	3.4774	1.2000e-004	1.0000e-004	3.5116
Total	2.2600e-003	0.0144	0.0183	9.0000e-005	5.5700e-003	1.4000e-004	5.7200e-003	1.5100e-003	1.4000e-004	1.6600e-003	0.0000	7.8927	7.8927	2.4000e-004	7.5000e-004	8.1226

Mitigated Construction On-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, 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					
Off-Road	0.0931	1.0065	0.6208	1.3500e-003		0.0437	0.0437		0.0402	0.0402	0.0000	118.3876	118.3876	0.0383	0.0000	119.3449
Total	0.0931	1.0065	0.6208	1.3500e-003		0.0437	0.0437		0.0402	0.0402	0.0000	118.3876	118.3876	0.0383	0.0000	119.3449

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	4.9000e-004	0.0132	3.8400e-003	5.0000e-005	1.2600e-003	1.2000e-004	1.3800e-003	3.7000e-004	1.2000e-004	4.9000e-004	0.0000	4.4153	4.4153	1.2000e-004	6.5000e-004	4.6110
Worker	1.7700e-003	1.1500e-003	0.0145	4.0000e-005	3.8900e-003	2.0000e-005	3.9200e-003	1.0400e-003	2.0000e-005	1.0600e-003	0.0000	3.4774	3.4774	1.2000e-004	1.0000e-004	3.5116
Total	2.2600e-003	0.0144	0.0183	9.0000e-005	5.1500e-003	1.4000e-004	5.3000e-003	1.4100e-003	1.4000e-004	1.5500e-003	0.0000	7.8927	7.8927	2.4000e-004	7.5000e-004	8.1226

3.3 Trenching - 2023

Unmitigated Construction On-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, 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					
Off-Road	0.1021	1.0777	0.7459	1.7000e-003		0.0452	0.0452		0.0416	0.0416	0.0000	149.2695	149.2695	0.0483	0.0000	150.4765
Total	0.1021	1.0777	0.7459	1.7000e-003		0.0452	0.0452		0.0416	0.0416	0.0000	149.2695	149.2695	0.0483	0.0000	150.4765

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	3.8000e-004	0.0141	4.2600e-003	6.0000e-005	1.7000e-003	8.0000e-005	1.7700e-003	4.9000e-004	7.0000e-005	5.6000e-004	0.0000	5.3786	5.3786	1.3000e-004	7.9000e-004	5.6171
Worker	2.0800e-003	1.2900e-003	0.0169	5.0000e-005	5.3200e-003	3.0000e-005	5.3500e-003	1.4200e-003	3.0000e-005	1.4400e-003	0.0000	4.2716	4.2716	1.4000e-004	1.2000e-004	4.3113
Total	2.4600e-003	0.0154	0.0212	1.1000e-004	7.0200e-003	1.1000e-004	7.1200e-003	1.9100e-003	1.0000e-004	2.0000e-003	0.0000	9.6502	9.6502	2.7000e-004	9.1000e-004	9.9284

Mitigated Construction On-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, 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					
Off-Road	0.1021	1.0777	0.7459	1.7000e-003		0.0452	0.0452		0.0416	0.0416	0.0000	149.2694	149.2694	0.0483	0.0000	150.4763
Total	0.1021	1.0777	0.7459	1.7000e-003		0.0452	0.0452		0.0416	0.0416	0.0000	149.2694	149.2694	0.0483	0.0000	150.4763

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	3.8000e-004	0.0141	4.2600e-003	6.0000e-005	1.5900e-003	8.0000e-005	1.6700e-003	4.6000e-004	7.0000e-005	5.4000e-004	0.0000	5.3786	5.3786	1.3000e-004	7.9000e-004	5.6171
Worker	2.0800e-003	1.2900e-003	0.0169	5.0000e-005	4.9100e-003	3.0000e-005	4.9400e-003	1.3100e-003	3.0000e-005	1.3400e-003	0.0000	4.2716	4.2716	1.4000e-004	1.2000e-004	4.3113
Total	2.4600e-003	0.0154	0.0212	1.1000e-004	6.5000e-003	1.1000e-004	6.6100e-003	1.7700e-003	1.0000e-004	1.8800e-003	0.0000	9.6502	9.6502	2.7000e-004	9.1000e-004	9.9284

3.4 Cable Laying/Vaulting - 2022

Unmitigated Construction On-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, 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					
Off-Road	0.0685	0.6080	0.5830	1.0600e-003		0.0294	0.0294		0.0280	0.0280	0.0000	90.2998	90.2998	0.0180	0.0000	90.7506
Total	0.0685	0.6080	0.5830	1.0600e-003		0.0294	0.0294		0.0280	0.0280	0.0000	90.2998	90.2998	0.0180	0.0000	90.7506

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	4.9000e-004	0.0132	3.8400e-003	5.0000e-005	1.3500e-003	1.2000e-004	1.4700e-003	3.9000e-004	1.2000e-004	5.1000e-004	0.0000	4.4153	4.4153	1.2000e-004	6.5000e-004	4.6110
Worker	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
Total	4.9000e-004	0.0132	3.8400e-003	5.0000e-005	1.3500e-003	1.2000e-004	1.4700e-003	3.9000e-004	1.2000e-004	5.1000e-004	0.0000	4.4153	4.4153	1.2000e-004	6.5000e-004	4.6110

Mitigated Construction On-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, 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					
Off-Road	0.0685	0.6080	0.5830	1.0600e-003		0.0294	0.0294		0.0280	0.0280	0.0000	90.2997	90.2997	0.0180	0.0000	90.7505
Total	0.0685	0.6080	0.5830	1.0600e-003		0.0294	0.0294		0.0280	0.0280	0.0000	90.2997	90.2997	0.0180	0.0000	90.7505

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	4.9000e-004	0.0132	3.8400e-003	5.0000e-005	1.2600e-003	1.2000e-004	1.3800e-003	3.7000e-004	1.2000e-004	4.9000e-004	0.0000	4.4153	4.4153	1.2000e-004	6.5000e-004	4.6110
Worker	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
Total	4.9000e-004	0.0132	3.8400e-003	5.0000e-005	1.2600e-003	1.2000e-004	1.3800e-003	3.7000e-004	1.2000e-004	4.9000e-004	0.0000	4.4153	4.4153	1.2000e-004	6.5000e-004	4.6110

3.4 Cable Laying/Vaulting - 2023

Unmitigated Construction On-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, 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					
Off-Road	0.0800	0.7089	0.7286	1.3400e-003		0.0325	0.0325		0.0310	0.0310	0.0000	113.8750	113.8750	0.0225	0.0000	114.4364
Total	0.0800	0.7089	0.7286	1.3400e-003		0.0325	0.0325		0.0310	0.0310	0.0000	113.8750	113.8750	0.0225	0.0000	114.4364

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	3.8000e-004	0.0141	4.2600e-003	6.0000e-005	1.7000e-003	8.0000e-005	1.7700e-003	4.9000e-004	7.0000e-005	5.6000e-004	0.0000	5.3786	5.3786	1.3000e-004	7.9000e-004	5.6171
Worker	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
Total	3.8000e-004	0.0141	4.2600e-003	6.0000e-005	1.7000e-003	8.0000e-005	1.7700e-003	4.9000e-004	7.0000e-005	5.6000e-004	0.0000	5.3786	5.3786	1.3000e-004	7.9000e-004	5.6171

Mitigated Construction On-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, 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					
Off-Road	0.0800	0.7089	0.7286	1.3400e-003		0.0325	0.0325		0.0310	0.0310	0.0000	113.8749	113.8749	0.0225	0.0000	114.4363
Total	0.0800	0.7089	0.7286	1.3400e-003		0.0325	0.0325		0.0310	0.0310	0.0000	113.8749	113.8749	0.0225	0.0000	114.4363

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	3.8000e-004	0.0141	4.2600e-003	6.0000e-005	1.5900e-003	8.0000e-005	1.6700e-003	4.6000e-004	7.0000e-005	5.4000e-004	0.0000	5.3786	5.3786	1.3000e-004	7.9000e-004	5.6171
Worker	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
Total	3.8000e-004	0.0141	4.2600e-003	6.0000e-005	1.5900e-003	8.0000e-005	1.6700e-003	4.6000e-004	7.0000e-005	5.4000e-004	0.0000	5.3786	5.3786	1.3000e-004	7.9000e-004	5.6171

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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

**Cordova Park 69 kV Underground Cable Replacement
Sacramento County, Summer**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	19.01	User Defined Unit	19.01	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 69 kV = 19.01 acres

Construction Phase - 12 month construction schedule

Off-road Equipment - Applicant approved equipment list

Off-road Equipment - Applicant approved equipment list

Off-road Equipment - Applicant approved equipment list

Trips and VMT - Default number of workers assumed for all activities; 2 trucks assumed for a material haul truck and water truck

Grading - CalEEMod estimated grading = 15 acres

Construction Off-road Equipment Mitigation - The project would comply with SMAQMD Basic Construction Emissions Controls Practices (BMPs).

Table Name	Column Name	Default Value	New Value
------------	-------------	---------------	-----------

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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

tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	300.00	260.00
tblConstructionPhase	NumDays	10.00	260.00
tblGrading	AcresOfGrading	130.00	15.00
tblLandUse	LotAcreage	0.00	19.01
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	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
Year	lb/day										lb/day					
2022	3.8921	39.2277	27.3967	0.0570	6.2697	1.7866	8.0563	3.3679	1.6608	5.0287	0.0000	5,492.5023	5,492.5023	1.4545	0.0400	5,540.7915
2023	3.4136	33.8854	26.2571	0.0569	6.2697	1.4722	7.7419	3.3679	1.3692	4.7371	0.0000	5,481.5205	5,481.5205	1.4494	0.0386	5,529.2508
Maximum	3.8921	39.2277	27.3967	0.0570	6.2697	1.7866	8.0563	3.3679	1.6608	5.0287	0.0000	5,492.5023	5,492.5023	1.4545	0.0400	5,540.7915

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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

Mitigated Construction

	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
Year	lb/day										lb/day					
2022	3.8921	39.2277	27.3967	0.0570	2.9103	1.7866	4.6969	1.5403	1.6608	3.2011	0.0000	5,492.5023	5,492.5023	1.4545	0.0400	5,540.7915
2023	3.4136	33.8854	26.2571	0.0569	2.9103	1.4722	4.3825	1.5403	1.3692	2.9095	0.0000	5,481.5205	5,481.5205	1.4494	0.0386	5,529.2508
Maximum	3.8921	39.2277	27.3967	0.0570	2.9103	1.7866	4.6969	1.5403	1.6608	3.2011	0.0000	5,492.5023	5,492.5023	1.4545	0.0400	5,540.7915

	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	53.58	0.00	42.53	54.26	0.00	37.43	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	Site Preparation	Site Preparation	7/25/2022	7/21/2023	5	260	
2	Trenching	Trenching	7/25/2022	7/21/2023	5	260	
3	Cable Laying/Vaulting	Building Construction	7/25/2022	7/21/2023	5	260	

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Cable Laying/Vaulting	Cranes	1	7.00	231	0.29
Cable Laying/Vaulting	Excavators	0	8.00	150	0.38
Cable Laying/Vaulting	Forklifts	1	8.00	89	0.20
Cable Laying/Vaulting	Generator Sets	1	8.00	84	0.74
Cable Laying/Vaulting	Graders	0	8.00	187	0.41
Cable Laying/Vaulting	Rubber Tired Dozers	0	8.00	247	0.40
Cable Laying/Vaulting	Scrapers	0	8.00	367	0.48
Cable Laying/Vaulting	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Cable Laying/Vaulting	Welders	1	8.00	46	0.45
Trenching	Cranes	0	7.00	231	0.29
Trenching	Excavators	1	8.00	150	0.38
Trenching	Forklifts	0	8.00	89	0.20
Trenching	Generator Sets	0	8.00	84	0.74
Trenching	Graders	1	8.00	187	0.41
Trenching	Rubber Tired Dozers	1	8.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Welders	0	8.00	46	0.45

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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
Site Preparation	2	5.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Cable Laying/Vaulting	5	0.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	4	10.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2022

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	lb/day										lb/day					
Fugitive Dust					6.0833	0.0000	6.0833	3.3168	0.0000	3.3168			0.0000			0.0000
Off-Road	1.0018	10.4693	5.8199	0.0116		0.5075	0.5075		0.4669	0.4669		1,128.2743	1,128.2743	0.3649		1,137.3970
Total	1.0018	10.4693	5.8199	0.0116	6.0833	0.5075	6.5908	3.3168	0.4669	3.7837		1,128.2743	1,128.2743	0.3649		1,137.3970

Unmitigated Construction Off-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0241	2.1200e-003	0.0262	6.9400e-003	2.0200e-003	8.9600e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	0.0181	9.1500e-003	0.1479	3.6000e-004	0.0380	2.1000e-004	0.0382	0.0101	1.9000e-004	0.0103		36.5376	36.5376	1.0800e-003	9.4000e-004	36.8461
Total	0.0268	0.2270	0.2135	1.1500e-003	0.0621	2.3300e-003	0.0645	0.0170	2.2100e-003	0.0192		121.1852	121.1852	3.2900e-003	0.0133	125.2431

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	lb/day										lb/day					
Fugitive Dust					2.7375	0.0000	2.7375	1.4926	0.0000	1.4926			0.0000			0.0000
Off-Road	1.0018	10.4693	5.8199	0.0116		0.5075	0.5075		0.4669	0.4669	0.0000	1,128.2743	1,128.2743	0.3649		1,137.3970
Total	1.0018	10.4693	5.8199	0.0116	2.7375	0.5075	3.2450	1.4926	0.4669	1.9595	0.0000	1,128.2743	1,128.2743	0.3649		1,137.3970

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0226	2.1200e-003	0.0247	6.5600e-003	2.0200e-003	8.5800e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	0.0181	9.1500e-003	0.1479	3.6000e-004	0.0351	2.1000e-004	0.0353	9.3600e-003	1.9000e-004	9.5500e-003		36.5376	36.5376	1.0800e-003	9.4000e-004	36.8461
Total	0.0268	0.2270	0.2135	1.1500e-003	0.0576	2.3300e-003	0.0599	0.0159	2.2100e-003	0.0181		121.1852	121.1852	3.2900e-003	0.0133	125.2431

3.2 Site Preparation - 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	lb/day										lb/day					
Fugitive Dust					6.0833	0.0000	6.0833	3.3168	0.0000	3.3168			0.0000			0.0000
Off-Road	0.8360	8.6628	5.3377	0.0117		0.3967	0.3967		0.3650	0.3650		1,128.5772	1,128.5772	0.3650		1,137.7023
Total	0.8360	8.6628	5.3377	0.0117	6.0833	0.3967	6.4800	3.3168	0.3650	3.6818		1,128.5772	1,128.5772	0.3650		1,137.7023

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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

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	lb/day										lb/day					
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
Vendor	5.3500e-003	0.1852	0.0577	7.6000e-004	0.0241	1.0300e-003	0.0251	6.9400e-003	9.9000e-004	7.9300e-003		81.7537	81.7537	2.0200e-003	0.0120	85.3754
Worker	0.0169	8.1000e-003	0.1363	3.5000e-004	0.0380	2.0000e-004	0.0382	0.0101	1.8000e-004	0.0103		35.5849	35.5849	9.8000e-004	8.7000e-004	35.8698
Total	0.0222	0.1933	0.1939	1.1100e-003	0.0621	1.2300e-003	0.0634	0.0170	1.1700e-003	0.0182		117.3386	117.3386	3.0000e-003	0.0129	121.2452

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	lb/day										lb/day					
Fugitive Dust					2.7375	0.0000	2.7375	1.4926	0.0000	1.4926			0.0000			0.0000
Off-Road	0.8360	8.6628	5.3377	0.0117		0.3967	0.3967		0.3650	0.3650	0.0000	1,128.5772	1,128.5772	0.3650		1,137.7023
Total	0.8360	8.6628	5.3377	0.0117	2.7375	0.3967	3.1342	1.4926	0.3650	1.8576	0.0000	1,128.5772	1,128.5772	0.3650		1,137.7023

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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

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	lb/day										lb/day					
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
Vendor	5.3500e-003	0.1852	0.0577	7.6000e-004	0.0226	1.0300e-003	0.0236	6.5600e-003	9.9000e-004	7.5500e-003		81.7537	81.7537	2.0200e-003	0.0120	85.3754
Worker	0.0169	8.1000e-003	0.1363	3.5000e-004	0.0351	2.0000e-004	0.0353	9.3600e-003	1.8000e-004	9.5400e-003		35.5849	35.5849	9.8000e-004	6.7000e-004	35.8698
Total	0.0222	0.1933	0.1939	1.1100e-003	0.0576	1.2300e-003	0.0589	0.0159	1.1700e-003	0.0171		117.3386	117.3386	3.0000e-003	0.0129	121.2452

3.3 Trenching - 2022

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	lb/day										lb/day					
Off-Road	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998		2,269.5685	2,269.5685	0.7340		2,287.9191
Total	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998		2,269.5685	2,269.5685	0.7340		2,287.9191

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0241	2.1200e-003	0.0262	6.9400e-003	2.0200e-003	8.9600e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	0.0362	0.0183	0.2958	7.2000e-004	0.0761	4.1000e-004	0.0765	0.0202	3.8000e-004	0.0206		73.0752	73.0752	2.1700e-003	1.8900e-003	73.6921
Total	0.0449	0.2362	0.3614	1.5100e-003	0.1002	2.5300e-003	0.1027	0.0271	2.4000e-003	0.0295		157.7228	157.7228	4.3800e-003	0.0143	162.0891

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	lb/day										lb/day					
Off-Road	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998	0.0000	2,269.5685	2,269.5685	0.7340		2,287.9191
Total	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998	0.0000	2,269.5685	2,269.5685	0.7340		2,287.9191

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0226	2.1200e-003	0.0247	6.5600e-003	2.0200e-003	8.5800e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	0.0362	0.0183	0.2958	7.2000e-004	0.0701	4.1000e-004	0.0705	0.0187	3.8000e-004	0.0191		73.0752	73.0752	2.1700e-003	1.8900e-003	73.6921
Total	0.0449	0.2362	0.3614	1.5100e-003	0.0927	2.5300e-003	0.0952	0.0253	2.4000e-003	0.0277		157.7228	157.7228	4.3800e-003	0.0143	162.0891

3.3 Trenching - 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	lb/day										lb/day					
Off-Road	1.4082	14.8645	10.2881	0.0234		0.6233	0.6233		0.5734	0.5734		2,269.5380	2,269.5380	0.7340		2,287.8884
Total	1.4082	14.8645	10.2881	0.0234		0.6233	0.6233		0.5734	0.5734		2,269.5380	2,269.5380	0.7340		2,287.8884

Unmitigated Construction Off-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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	lb/day										lb/day					
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
Vendor	5.3500e-003	0.1852	0.0577	7.6000e-004	0.0241	1.0300e-003	0.0251	6.9400e-003	9.9000e-004	7.9300e-003		81.7537	81.7537	2.0200e-003	0.0120	85.3754
Worker	0.0337	0.0162	0.2725	7.0000e-004	0.0761	3.9000e-004	0.0765	0.0202	3.6000e-004	0.0205		71.1699	71.1699	1.9500e-003	1.7500e-003	71.7396
Total	0.0391	0.2014	0.3302	1.4600e-003	0.1002	1.4200e-003	0.1016	0.0271	1.3500e-003	0.0285		152.9236	152.9236	3.9700e-003	0.0137	157.1150

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	lb/day										lb/day					
Off-Road	1.4082	14.8645	10.2881	0.0234		0.6233	0.6233		0.5734	0.5734	0.0000	2,269.5380	2,269.5380	0.7340		2,287.8884
Total	1.4082	14.8645	10.2881	0.0234		0.6233	0.6233		0.5734	0.5734	0.0000	2,269.5380	2,269.5380	0.7340		2,287.8884

Mitigated Construction Off-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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	lb/day										lb/day					
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
Vendor	5.3500e-003	0.1852	0.0577	7.6000e-004	0.0226	1.0300e-003	0.0236	6.5600e-003	9.9000e-004	7.5500e-003		81.7537	81.7537	2.0200e-003	0.0120	85.3754
Worker	0.0337	0.0162	0.2725	7.0000e-004	0.0701	3.9000e-004	0.0705	0.0187	3.6000e-004	0.0191		71.1699	71.1699	1.9500e-003	1.7500e-003	71.7396
Total	0.0391	0.2014	0.3302	1.4600e-003	0.0927	1.4200e-003	0.0941	0.0253	1.3500e-003	0.0266		152.9236	152.9236	3.9700e-003	0.0137	157.1150

3.4 Cable Laying/Vaulting - 2022

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	lb/day										lb/day					
Off-Road	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875		1,731.1038	1,731.1038	0.3457		1,739.7462
Total	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875		1,731.1038	1,731.1038	0.3457		1,739.7462

Unmitigated Construction Off-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0241	2.1200e-003	0.0262	6.9400e-003	2.0200e-003	8.9600e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	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
Total	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0241	2.1200e-003	0.0262	6.9400e-003	2.0200e-003	8.9600e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970

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	lb/day										lb/day					
Off-Road	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875	0.0000	1,731.1038	1,731.1038	0.3457		1,739.7462
Total	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875	0.0000	1,731.1038	1,731.1038	0.3457		1,739.7462

Mitigated Construction Off-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0226	2.1200e-003	0.0247	6.5600e-003	2.0200e-003	8.5800e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	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
Total	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0226	2.1200e-003	0.0247	6.5600e-003	2.0200e-003	8.5800e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970

3.4 Cable Laying/Vaulting - 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	lb/day										lb/day					
Off-Road	1.1028	9.7781	10.0496	0.0184		0.4485	0.4485		0.4273	0.4273		1,731.3894	1,731.3894	0.3414		1,739.9245
Total	1.1028	9.7781	10.0496	0.0184		0.4485	0.4485		0.4273	0.4273		1,731.3894	1,731.3894	0.3414		1,739.9245

Unmitigated Construction Off-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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	lb/day										lb/day					
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
Vendor	5.3500e-003	0.1852	0.0577	7.6000e-004	0.0241	1.0300e-003	0.0251	6.9400e-003	9.9000e-004	7.9300e-003		81.7537	81.7537	2.0200e-003	0.0120	85.3754
Worker	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
Total	5.3500e-003	0.1852	0.0577	7.6000e-004	0.0241	1.0300e-003	0.0251	6.9400e-003	9.9000e-004	7.9300e-003		81.7537	81.7537	2.0200e-003	0.0120	85.3754

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	lb/day										lb/day					
Off-Road	1.1028	9.7781	10.0496	0.0184		0.4485	0.4485		0.4273	0.4273	0.0000	1,731.3894	1,731.3894	0.3414		1,739.9245
Total	1.1028	9.7781	10.0496	0.0184		0.4485	0.4485		0.4273	0.4273	0.0000	1,731.3894	1,731.3894	0.3414		1,739.9245

Mitigated Construction Off-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Summer

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	lb/day										lb/day					
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
Vendor	5.3500e-003	0.1852	0.0577	7.6000e-004	0.0226	1.0300e-003	0.0236	6.5600e-003	9.9000e-004	7.5500e-003		81.7537	81.7537	2.0200e-003	0.0120	85.3754
Worker	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
Total	5.3500e-003	0.1852	0.0577	7.6000e-004	0.0226	1.0300e-003	0.0236	6.5600e-003	9.9000e-004	7.5500e-003		81.7537	81.7537	2.0200e-003	0.0120	85.3754

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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

Cordova Park 69 kV Underground Cable Replacement

Sacramento County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	19.01	User Defined Unit	19.01	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 69 kV = 19.01 acres

Construction Phase - 12 month construction schedule

Off-road Equipment - Applicant approved equipment list

Off-road Equipment - Applicant approved equipment list

Off-road Equipment - Applicant approved equipment list

Trips and VMT - Default number of workers assumed for all activities; 2 trucks assumed for a material haul truck and water truck

Grading - CalEEMod estimated grading = 15 acres

Construction Off-road Equipment Mitigation - The project would comply with SMAQMD Basic Construction Emissions Controls Practices (BMPs).

Table Name	Column Name	Default Value	New Value
------------	-------------	---------------	-----------

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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

tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	300.00	260.00
tblConstructionPhase	NumDays	10.00	260.00
tblGrading	AcresOfGrading	130.00	15.00
tblLandUse	LotAcreage	0.00	19.01
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	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
Year	lb/day										lb/day					
2022	3.8854	39.2824	27.3461	0.0568	6.2697	1.7867	8.0563	3.3679	1.6608	5.0288	0.0000	5,480.3270	5,480.3270	1.4550	0.0405	5,528.7704
2023	3.4073	33.9324	26.2122	0.0567	6.2697	1.4722	7.7419	3.3679	1.3692	4.7371	0.0000	5,469.9032	5,469.9032	1.4498	0.0390	5,517.7843
Maximum	3.8854	39.2824	27.3461	0.0568	6.2697	1.7867	8.0563	3.3679	1.6608	5.0288	0.0000	5,480.3270	5,480.3270	1.4550	0.0405	5,528.7704

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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

Mitigated Construction

	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
Year	lb/day										lb/day					
2022	3.8854	39.2824	27.3461	0.0568	2.9103	1.7867	4.6970	1.5403	1.6608	3.2012	0.0000	5,480.3270	5,480.3270	1.4550	0.0405	5,528.7704
2023	3.4073	33.9324	26.2122	0.0567	2.9103	1.4722	4.3825	1.5403	1.3692	2.9096	0.0000	5,469.9032	5,469.9032	1.4498	0.0390	5,517.7843
Maximum	3.8854	39.2824	27.3461	0.0568	2.9103	1.7867	4.6970	1.5403	1.6608	3.2012	0.0000	5,480.3270	5,480.3270	1.4550	0.0405	5,528.7704

	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	53.58	0.00	42.53	54.26	0.00	37.43	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	Site Preparation	Site Preparation	7/25/2022	7/21/2023	5	260	
2	Trenching	Trenching	7/25/2022	7/21/2023	5	260	
3	Cable Laying/Vaulting	Building Construction	7/25/2022	7/21/2023	5	260	

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Cable Laying/Vaulting	Cranes	1	7.00	231	0.29
Cable Laying/Vaulting	Excavators	0	8.00	150	0.38
Cable Laying/Vaulting	Forklifts	1	8.00	89	0.20
Cable Laying/Vaulting	Generator Sets	1	8.00	84	0.74
Cable Laying/Vaulting	Graders	0	8.00	187	0.41
Cable Laying/Vaulting	Rubber Tired Dozers	0	8.00	247	0.40
Cable Laying/Vaulting	Scrapers	0	8.00	367	0.48
Cable Laying/Vaulting	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Cable Laying/Vaulting	Welders	1	8.00	46	0.45
Trenching	Cranes	0	7.00	231	0.29
Trenching	Excavators	1	8.00	150	0.38
Trenching	Forklifts	0	8.00	89	0.20
Trenching	Generator Sets	0	8.00	84	0.74
Trenching	Graders	1	8.00	187	0.41
Trenching	Rubber Tired Dozers	1	8.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Welders	0	8.00	46	0.45

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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
Site Preparation	2	5.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Cable Laying/Vaulting	5	0.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	4	10.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2022

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	lb/day										lb/day					
Fugitive Dust					6.0833	0.0000	6.0833	3.3168	0.0000	3.3168			0.0000			0.0000
Off-Road	1.0018	10.4693	5.8199	0.0116		0.5075	0.5075		0.4669	0.4669		1,128.2743	1,128.2743	0.3649		1,137.3970
Total	1.0018	10.4693	5.8199	0.0116	6.0833	0.5075	6.5908	3.3168	0.4669	3.7837		1,128.2743	1,128.2743	0.3649		1,137.3970

Unmitigated Construction Off-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0241	2.1300e-003	0.0262	6.9400e-003	2.0400e-003	8.9800e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	0.0160	0.0112	0.1281	3.2000e-004	0.0380	2.1000e-004	0.0382	0.0101	1.9000e-004	0.0103		32.4890	32.4890	1.2400e-003	1.0800e-003	32.8430
Total	0.0245	0.2453	0.1966	1.1100e-003	0.0621	2.3400e-003	0.0645	0.0170	2.2300e-003	0.0193		117.1268	117.1268	3.4400e-003	0.0135	121.2361

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	lb/day										lb/day					
Fugitive Dust					2.7375	0.0000	2.7375	1.4926	0.0000	1.4926			0.0000			0.0000
Off-Road	1.0018	10.4693	5.8199	0.0116		0.5075	0.5075		0.4669	0.4669	0.0000	1,128.2743	1,128.2743	0.3649		1,137.3970
Total	1.0018	10.4693	5.8199	0.0116	2.7375	0.5075	3.2450	1.4926	0.4669	1.9595	0.0000	1,128.2743	1,128.2743	0.3649		1,137.3970

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0226	2.1300e-003	0.0247	6.5600e-003	2.0400e-003	8.6000e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	0.0160	0.0112	0.1281	3.2000e-004	0.0351	2.1000e-004	0.0353	9.3600e-003	1.9000e-004	9.5500e-003		32.4890	32.4890	1.2400e-003	1.0800e-003	32.8430
Total	0.0245	0.2453	0.1966	1.1100e-003	0.0576	2.3400e-003	0.0600	0.0159	2.2300e-003	0.0182		117.1268	117.1268	3.4400e-003	0.0135	121.2361

3.2 Site Preparation - 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	lb/day										lb/day					
Fugitive Dust					6.0833	0.0000	6.0833	3.3168	0.0000	3.3168			0.0000			0.0000
Off-Road	0.8360	8.6628	5.3377	0.0117		0.3967	0.3967		0.3650	0.3650		1,128.5772	1,128.5772	0.3650		1,137.7023
Total	0.8360	8.6628	5.3377	0.0117	6.0833	0.3967	6.4800	3.3168	0.3650	3.6818		1,128.5772	1,128.5772	0.3650		1,137.7023

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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

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	lb/day										lb/day					
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
Vendor	5.1700e-003	0.1991	0.0603	7.6000e-004	0.0241	1.0500e-003	0.0251	6.9400e-003	1.0000e-003	7.9400e-003		81.8123	81.8123	2.0100e-003	0.0120	85.4423
Worker	0.0149	9.9300e-003	0.1187	3.1000e-004	0.0380	2.0000e-004	0.0382	0.0101	1.8000e-004	0.0103		31.6539	31.6539	1.1200e-003	1.0000e-003	31.9807
Total	0.0201	0.2090	0.1790	1.0700e-003	0.0621	1.2500e-003	0.0634	0.0170	1.1800e-003	0.0182		113.4662	113.4662	3.1300e-003	0.0130	117.4230

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	lb/day										lb/day					
Fugitive Dust					2.7375	0.0000	2.7375	1.4926	0.0000	1.4926			0.0000			0.0000
Off-Road	0.8360	8.6628	5.3377	0.0117		0.3967	0.3967		0.3650	0.3650	0.0000	1,128.5772	1,128.5772	0.3650		1,137.7023
Total	0.8360	8.6628	5.3377	0.0117	2.7375	0.3967	3.1342	1.4926	0.3650	1.8576	0.0000	1,128.5772	1,128.5772	0.3650		1,137.7023

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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

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	lb/day										lb/day					
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
Vendor	5.1700e-003	0.1991	0.0603	7.6000e-004	0.0226	1.0500e-003	0.0236	6.5600e-003	1.0000e-003	7.5600e-003		81.8123	81.8123	2.0100e-003	0.0120	85.4423
Worker	0.0149	9.9300e-003	0.1187	3.1000e-004	0.0351	2.0000e-004	0.0353	9.3600e-003	1.8000e-004	9.5400e-003		31.6539	31.6539	1.1200e-003	1.0000e-003	31.9807
Total	0.0201	0.2090	0.1790	1.0700e-003	0.0576	1.2500e-003	0.0589	0.0159	1.1800e-003	0.0171		113.4662	113.4662	3.1300e-003	0.0130	117.4230

3.3 Trenching - 2022

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	lb/day										lb/day					
Off-Road	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998		2,269.5685	2,269.5685	0.7340		2,287.9191
Total	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998		2,269.5685	2,269.5685	0.7340		2,287.9191

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0241	2.1300e-003	0.0262	6.9400e-003	2.0400e-003	8.9800e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	0.0320	0.0225	0.2562	6.4000e-004	0.0761	4.1000e-004	0.0765	0.0202	3.8000e-004	0.0206		64.9780	64.9780	2.4800e-003	2.1700e-003	65.6860
Total	0.0405	0.2565	0.3247	1.4300e-003	0.1002	2.5400e-003	0.1027	0.0271	2.4200e-003	0.0295		149.6158	149.6158	4.6800e-003	0.0146	154.0791

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	lb/day										lb/day					
Off-Road	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998	0.0000	2,269.5685	2,269.5685	0.7340		2,287.9191
Total	1.6192	17.5039	10.7968	0.0234		0.7606	0.7606		0.6998	0.6998	0.0000	2,269.5685	2,269.5685	0.7340		2,287.9191

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0226	2.1300e-003	0.0247	6.5600e-003	2.0400e-003	8.6000e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	0.0320	0.0225	0.2562	6.4000e-004	0.0701	4.1000e-004	0.0705	0.0187	3.8000e-004	0.0191		64.9780	64.9780	2.4800e-003	2.1700e-003	65.6860
Total	0.0405	0.2565	0.3247	1.4300e-003	0.0927	2.5400e-003	0.0952	0.0253	2.4200e-003	0.0277		149.6158	149.6158	4.6800e-003	0.0146	154.0791

3.3 Trenching - 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	lb/day										lb/day					
Off-Road	1.4082	14.8645	10.2881	0.0234		0.6233	0.6233		0.5734	0.5734		2,269.5380	2,269.5380	0.7340		2,287.8884
Total	1.4082	14.8645	10.2881	0.0234		0.6233	0.6233		0.5734	0.5734		2,269.5380	2,269.5380	0.7340		2,287.8884

Unmitigated Construction Off-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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	lb/day										lb/day					
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
Vendor	5.1700e-003	0.1991	0.0603	7.6000e-004	0.0241	1.0500e-003	0.0251	6.9400e-003	1.0000e-003	7.9400e-003		81.8123	81.8123	2.0100e-003	0.0120	85.4423
Worker	0.0298	0.0199	0.2374	6.2000e-004	0.0761	3.9000e-004	0.0765	0.0202	3.6000e-004	0.0205		63.3078	63.3078	2.2500e-003	2.0000e-003	63.9614
Total	0.0350	0.2189	0.2977	1.3800e-003	0.1002	1.4400e-003	0.1016	0.0271	1.3600e-003	0.0285		145.1201	145.1201	4.2600e-003	0.0140	149.4037

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	lb/day										lb/day					
Off-Road	1.4082	14.8645	10.2881	0.0234		0.6233	0.6233		0.5734	0.5734	0.0000	2,269.5380	2,269.5380	0.7340		2,287.8884
Total	1.4082	14.8645	10.2881	0.0234		0.6233	0.6233		0.5734	0.5734	0.0000	2,269.5380	2,269.5380	0.7340		2,287.8884

Mitigated Construction Off-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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	lb/day										lb/day					
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
Vendor	5.1700e-003	0.1991	0.0603	7.6000e-004	0.0226	1.0500e-003	0.0236	6.5600e-003	1.0000e-003	7.5600e-003		81.8123	81.8123	2.0100e-003	0.0120	85.4423
Worker	0.0298	0.0199	0.2374	6.2000e-004	0.0701	3.9000e-004	0.0705	0.0187	3.6000e-004	0.0191		63.3078	63.3078	2.2500e-003	2.0000e-003	63.9614
Total	0.0350	0.2189	0.2977	1.3800e-003	0.0927	1.4400e-003	0.0941	0.0253	1.3600e-003	0.0266		145.1201	145.1201	4.2600e-003	0.0140	149.4037

3.4 Cable Laying/Vaulting - 2022

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	lb/day										lb/day					
Off-Road	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875		1,731.1038	1,731.1038	0.3457		1,739.7462
Total	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875		1,731.1038	1,731.1038	0.3457		1,739.7462

Unmitigated Construction Off-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0241	2.1300e-003	0.0262	6.9400e-003	2.0400e-003	8.9800e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	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
Total	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0241	2.1300e-003	0.0262	6.9400e-003	2.0400e-003	8.9800e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931

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	lb/day										lb/day					
Off-Road	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875	0.0000	1,731.1038	1,731.1038	0.3457		1,739.7462
Total	1.1908	10.5735	10.1395	0.0184		0.5116	0.5116		0.4875	0.4875	0.0000	1,731.1038	1,731.1038	0.3457		1,739.7462

Mitigated Construction Off-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0226	2.1300e-003	0.0247	6.5600e-003	2.0400e-003	8.6000e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	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
Total	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0226	2.1300e-003	0.0247	6.5600e-003	2.0400e-003	8.6000e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931

3.4 Cable Laying/Vaulting - 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	lb/day										lb/day					
Off-Road	1.1028	9.7781	10.0496	0.0184		0.4485	0.4485		0.4273	0.4273		1,731.3894	1,731.3894	0.3414		1,739.9245
Total	1.1028	9.7781	10.0496	0.0184		0.4485	0.4485		0.4273	0.4273		1,731.3894	1,731.3894	0.3414		1,739.9245

Unmitigated Construction Off-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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	lb/day										lb/day					
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
Vendor	5.1700e-003	0.1991	0.0603	7.6000e-004	0.0241	1.0500e-003	0.0251	6.9400e-003	1.0000e-003	7.9400e-003		81.8123	81.8123	2.0100e-003	0.0120	85.4423
Worker	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
Total	5.1700e-003	0.1991	0.0603	7.6000e-004	0.0241	1.0500e-003	0.0251	6.9400e-003	1.0000e-003	7.9400e-003		81.8123	81.8123	2.0100e-003	0.0120	85.4423

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	lb/day										lb/day					
Off-Road	1.1028	9.7781	10.0496	0.0184		0.4485	0.4485		0.4273	0.4273	0.0000	1,731.3894	1,731.3894	0.3414		1,739.9245
Total	1.1028	9.7781	10.0496	0.0184		0.4485	0.4485		0.4273	0.4273	0.0000	1,731.3894	1,731.3894	0.3414		1,739.9245

Mitigated Construction Off-Site

Cordova Park 69 kV Underground Cable Replacement - Sacramento County, Winter

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	lb/day										lb/day					
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
Vendor	5.1700e-003	0.1991	0.0603	7.6000e-004	0.0226	1.0500e-003	0.0236	6.5600e-003	1.0000e-003	7.5600e-003		81.8123	81.8123	2.0100e-003	0.0120	85.4423
Worker	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
Total	5.1700e-003	0.1991	0.0603	7.6000e-004	0.0226	1.0500e-003	0.0236	6.5600e-003	1.0000e-003	7.5600e-003		81.8123	81.8123	2.0100e-003	0.0120	85.4423

Cordova Park 69 kV - Paving - Sacramento County, Annual

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

**Cordova Park 69 kV - Paving
Sacramento County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.76	User Defined Unit	0.76	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Paved area along Rossmoor Dr 4,125' by 8'

Construction Phase - 12 months of paving

Off-road Equipment - Applicant approved equipment list

Trips and VMT - Default number of workers assumed for all activities; 2 trucks assumed for a material haul truck and water truck

Construction Off-road Equipment Mitigation - The project would comply with SMAQMD Basic Construction Emissions Controls Practices (BMPs).

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	260.00

Cordova Park 69 kV - Paving - Sacramento County, Annual

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

tblLandUse	LotAcreage	0.00	0.76
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	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
Year	tons/yr										MT/yr					
2022	0.0465	0.4468	0.5839	9.6000e-004	6.8400e-003	0.0223	0.0291	1.8500e-003	0.0206	0.0224	0.0000	84.2050	84.2050	0.0242	7.8000e-004	85.0429
2023	0.0547	0.5166	0.7335	1.2100e-003	8.6200e-003	0.0249	0.0335	2.3300e-003	0.0230	0.0253	0.0000	105.8559	105.8559	0.0305	9.5000e-004	106.8999
Maximum	0.0547	0.5166	0.7335	1.2100e-003	8.6200e-003	0.0249	0.0335	2.3300e-003	0.0230	0.0253	0.0000	105.8559	105.8559	0.0305	9.5000e-004	106.8999

Mitigated Construction

	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
--	-----	-----	----	-----	---------------	--------------	------------	----------------	---------------	-------------	----------	-----------	-----------	-----	-----	------

Cordova Park 69 kV - Paving - Sacramento County, Annual

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

Year	tons/yr										MT/yr					
2022	0.0465	0.4468	0.5839	9.6000e-004	6.3200e-003	0.0223	0.0286	1.7200e-003	0.0206	0.0223	0.0000	84.2049	84.2049	0.0242	7.8000e-004	85.0429
2023	0.0547	0.5166	0.7335	1.2100e-003	7.9700e-003	0.0249	0.0329	2.1700e-003	0.0230	0.0251	0.0000	105.8558	105.8558	0.0305	9.5000e-004	106.8998
Maximum	0.0547	0.5166	0.7335	1.2100e-003	7.9700e-003	0.0249	0.0329	2.1700e-003	0.0230	0.0251	0.0000	105.8558	105.8558	0.0305	9.5000e-004	106.8998

	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	7.57	0.00	1.85	6.94	0.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2022	9-30-2022	0.2082	0.2082
2	10-1-2022	12-31-2022	0.2822	0.2822
3	1-1-2023	3-31-2023	0.2536	0.2536
4	4-1-2023	6-30-2023	0.2559	0.2559
5	7-1-2023	9-30-2023	0.0591	0.0591
		Highest	0.2822	0.2822

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Paving	Paving	7/25/2022	7/21/2023	5	260	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Cordova Park 69 kV - Paving - Sacramento County, Annual

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

Category	tons/yr										MT/yr					
Off-Road	0.0437	0.4321	0.5612	8.7000e-004		0.0221	0.0221		0.0204	0.0204	0.0000	75.2691	75.2691	0.0239	0.0000	75.8669
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0437	0.4321	0.5612	8.7000e-004		0.0221	0.0221		0.0204	0.0204	0.0000	75.2691	75.2691	0.0239	0.0000	75.8669

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	4.9000e-004	0.0132	3.8400e-003	5.0000e-005	1.3500e-003	1.2000e-004	1.4700e-003	3.9000e-004	1.2000e-004	5.1000e-004	0.0000	4.4153	4.4153	1.2000e-004	6.5000e-004	4.6110
Worker	2.3000e-003	1.5000e-003	0.0189	5.0000e-005	5.4900e-003	3.0000e-005	5.5200e-003	1.4600e-003	3.0000e-005	1.4900e-003	0.0000	4.5207	4.5207	1.5000e-004	1.4000e-004	4.5651
Total	2.7900e-003	0.0147	0.0227	1.0000e-004	6.8400e-003	1.5000e-004	6.9900e-003	1.8500e-003	1.5000e-004	2.0000e-003	0.0000	8.9359	8.9359	2.7000e-004	7.9000e-004	9.1761

Mitigated Construction On-Site

Cordova Park 69 kV - Paving - Sacramento County, 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					
Off-Road	0.0437	0.4321	0.5612	8.7000e-004		0.0221	0.0221		0.0204	0.0204	0.0000	75.2690	75.2690	0.0239	0.0000	75.8668
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0437	0.4321	0.5612	8.7000e-004		0.0221	0.0221		0.0204	0.0204	0.0000	75.2690	75.2690	0.0239	0.0000	75.8668

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	4.9000e-004	0.0132	3.8400e-003	5.0000e-005	1.2600e-003	1.2000e-004	1.3800e-003	3.7000e-004	1.2000e-004	4.9000e-004	0.0000	4.4153	4.4153	1.2000e-004	6.5000e-004	4.6110
Worker	2.3000e-003	1.5000e-003	0.0189	5.0000e-005	5.0600e-003	3.0000e-005	5.0900e-003	1.3600e-003	3.0000e-005	1.3800e-003	0.0000	4.5207	4.5207	1.5000e-004	1.4000e-004	4.5651
Total	2.7900e-003	0.0147	0.0227	1.0000e-004	6.3200e-003	1.5000e-004	6.4700e-003	1.7300e-003	1.5000e-004	1.8700e-003	0.0000	8.9359	8.9359	2.7000e-004	7.9000e-004	9.1761

3.2 Paving - 2023

Unmitigated Construction On-Site

Cordova Park 69 kV - Paving - Sacramento County, 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					
Off-Road	0.0516	0.5008	0.7072	1.0900e-003		0.0248	0.0248		0.0229	0.0229	0.0000	94.9242	94.9242	0.0302	0.0000	95.6781
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0516	0.5008	0.7072	1.0900e-003		0.0248	0.0248		0.0229	0.0229	0.0000	94.9242	94.9242	0.0302	0.0000	95.6781

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	3.8000e-004	0.0141	4.2600e-003	6.0000e-005	1.7000e-003	8.0000e-005	1.7700e-003	4.9000e-004	7.0000e-005	5.6000e-004	0.0000	5.3786	5.3786	1.3000e-004	7.9000e-004	5.6171
Worker	2.7000e-003	1.6700e-003	0.0220	6.0000e-005	6.9200e-003	4.0000e-005	6.9600e-003	1.8400e-003	3.0000e-005	1.8800e-003	0.0000	5.5530	5.5530	1.8000e-004	1.6000e-004	5.6047
Total	3.0800e-003	0.0158	0.0262	1.2000e-004	8.6200e-003	1.2000e-004	8.7300e-003	2.3300e-003	1.0000e-004	2.4400e-003	0.0000	10.9316	10.9316	3.1000e-004	9.5000e-004	11.2218

Cordova Park 69 kV - Paving - Sacramento County, Annual

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

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	0.0516	0.5008	0.7072	1.0900e-003		0.0248	0.0248		0.0229	0.0229	0.0000	94.9241	94.9241	0.0302	0.0000	95.6779
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0516	0.5008	0.7072	1.0900e-003		0.0248	0.0248		0.0229	0.0229	0.0000	94.9241	94.9241	0.0302	0.0000	95.6779

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	3.8000e-004	0.0141	4.2600e-003	6.0000e-005	1.5900e-003	8.0000e-005	1.6700e-003	4.6000e-004	7.0000e-005	5.4000e-004	0.0000	5.3786	5.3786	1.3000e-004	7.9000e-004	5.6171
Worker	2.7000e-003	1.6700e-003	0.0220	6.0000e-005	6.3800e-003	4.0000e-005	6.4200e-003	1.7100e-003	3.0000e-005	1.7400e-003	0.0000	5.5530	5.5530	1.8000e-004	1.6000e-004	5.6047
Total	3.0800e-003	0.0158	0.0262	1.2000e-004	7.9700e-003	1.2000e-004	8.0900e-003	2.1700e-003	1.0000e-004	2.2800e-003	0.0000	10.9316	10.9316	3.1000e-004	9.5000e-004	11.2218

Cordova Park 69 kV - Paving - Sacramento County, Summer

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

**Cordova Park 69 kV - Paving
Sacramento County, Summer**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.76	User Defined Unit	0.76	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Paved area along Rossmoor Dr 4,125' by 8'

Construction Phase - 12 months of paving

Off-road Equipment - Applicant approved equipment list

Trips and VMT - Default number of workers assumed for all activities; 2 trucks assumed for a material haul truck and water truck

Construction Off-road Equipment Mitigation - The project would comply with SMAQMD Basic Construction Emissions Controls Practices (BMPs).

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	260.00

Cordova Park 69 kV - Paving - Sacramento County, Summer

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

tblLandUse	LotAcreage	0.00	0.76
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	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
Year	lb/day										lb/day					
2022	0.8159	7.7559	10.2096	0.0168	0.1230	0.3875	0.5105	0.0332	0.3574	0.3906	0.0000	1,622.6017	1,622.6017	0.4634	0.0149	1,638.6121
2023	0.7610	7.1139	10.1667	0.0167	0.1230	0.3432	0.4662	0.0332	0.3166	0.3498	0.0000	1,617.5303	1,617.5303	0.4630	0.0143	1,633.3541
Maximum	0.8159	7.7559	10.2096	0.0168	0.1230	0.3875	0.5105	0.0332	0.3574	0.3906	0.0000	1,622.6017	1,622.6017	0.4634	0.0149	1,638.6121

Mitigated Construction

	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
--	-----	-----	----	-----	---------------	--------------	------------	----------------	---------------	-------------	----------	-----------	-----------	-----	-----	------

Cordova Park 69 kV - Paving - Sacramento County, Summer

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

Year	lb/day										lb/day					
2022	0.8159	7.7559	10.2096	0.0168	0.1137	0.3875	0.5012	0.0309	0.3574	0.3883	0.0000	1,622.6017	1,622.6017	0.4634	0.0149	1,638.6121
2023	0.7610	7.1139	10.1667	0.0167	0.1137	0.3432	0.4569	0.0309	0.3166	0.3475	0.0000	1,617.5303	1,617.5303	0.4630	0.0143	1,633.3541
Maximum	0.8159	7.7559	10.2096	0.0168	0.1137	0.3875	0.5012	0.0309	0.3574	0.3883	0.0000	1,622.6017	1,622.6017	0.4634	0.0149	1,638.6121

	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	7.54	0.00	1.90	6.87	0.00	0.62	0.00	0.00	0.00	0.00	0.00	0.00

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	lb/day										lb/day					
Area	1.0000e-005	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.7000e-004	1.7000e-004	0.0000		1.8000e-004
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
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
Total	1.0000e-005	0.0000	8.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		1.7000e-004	1.7000e-004	0.0000	0.0000	1.8000e-004

Cordova Park 69 kV - Paving - Sacramento County, Summer

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

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	lb/day										lb/day					
Area	1.0000e-005	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.7000e-004	1.7000e-004	0.0000		1.8000e-004
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
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
Total	1.0000e-005	0.0000	8.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		1.7000e-004	1.7000e-004	0.0000	0.0000	1.8000e-004

	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	Paving	Paving	7/25/2022	7/21/2023	5	260	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Cordova Park 69 kV - Paving - Sacramento County, Summer

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

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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
Paving	5	13.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Paving - 2022

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	lb/day										lb/day					

Cordova Park 69 kV - Paving - Sacramento County, Summer

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

Off-Road	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549		1,442.9563	1,442.9563	0.4584		1,454.4154
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549		1,442.9563	1,442.9563	0.4584		1,454.4154

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0241	2.1200e-003	0.0262	6.9400e-003	2.0200e-003	8.9600e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	0.0471	0.0238	0.3845	9.3000e-004	0.0989	5.4000e-004	0.0994	0.0262	4.9000e-004	0.0267		94.9977	94.9977	2.8200e-003	2.4500e-003	95.7998
Total	0.0558	0.2417	0.4501	1.7200e-003	0.1230	2.6600e-003	0.1257	0.0332	2.5100e-003	0.0357		179.6454	179.6454	5.0300e-003	0.0149	184.1968

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
--	-----	-----	----	-----	---------------	--------------	------------	----------------	---------------	-------------	----------	-----------	-----------	-----	-----	------

Cordova Park 69 kV - Paving - Sacramento County, Summer

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

Category	lb/day										lb/day					
	Off-Road	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549	0.0000	1,442.9563	1,442.9563	0.4584	
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549	0.0000	1,442.9563	1,442.9563	0.4584		1,454.4154

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	lb/day										lb/day					
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
Vendor	8.6500e-003	0.2179	0.0656	7.9000e-004	0.0226	2.1200e-003	0.0247	6.5600e-003	2.0200e-003	8.5800e-003		84.6477	84.6477	2.2100e-003	0.0124	88.3970
Worker	0.0471	0.0238	0.3845	9.3000e-004	0.0912	5.4000e-004	0.0917	0.0243	4.9000e-004	0.0248		94.9977	94.9977	2.8200e-003	2.4500e-003	95.7998
Total	0.0558	0.2417	0.4501	1.7200e-003	0.1137	2.6600e-003	0.1164	0.0309	2.5100e-003	0.0334		179.6454	179.6454	5.0300e-003	0.0149	184.1968

3.2 Paving - 2023

Unmitigated Construction On-Site

Cordova Park 69 kV - Paving - Sacramento County, Summer

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	lb/day										lb/day					
Off-Road	0.7118	6.9076	9.7547	0.0151		0.3417	0.3417		0.3152	0.3152		1,443.2558	1,443.2558	0.4585		1,454.7173
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7118	6.9076	9.7547	0.0151		0.3417	0.3417		0.3152	0.3152		1,443.2558	1,443.2558	0.4585		1,454.7173

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	lb/day										lb/day					
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
Vendor	5.3500e-003	0.1852	0.0577	7.6000e-004	0.0241	1.0300e-003	0.0251	6.9400e-003	9.9000e-004	7.9300e-003		81.7537	81.7537	2.0200e-003	0.0120	85.3754
Worker	0.0438	0.0211	0.3543	9.0000e-004	0.0989	5.1000e-004	0.0994	0.0262	4.7000e-004	0.0267		92.5209	92.5209	2.5400e-003	2.2700e-003	93.2614
Total	0.0492	0.2063	0.4120	1.6600e-003	0.1230	1.5400e-003	0.1245	0.0332	1.4600e-003	0.0346		174.2745	174.2745	4.5600e-003	0.0143	178.6368

Mitigated Construction On-Site

Cordova Park 69 kV - Paving - Sacramento County, Summer

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	lb/day										lb/day					
Off-Road	0.7118	6.9076	9.7547	0.0151		0.3417	0.3417		0.3152	0.3152	0.0000	1,443.2558	1,443.2558	0.4585		1,454.7173
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7118	6.9076	9.7547	0.0151		0.3417	0.3417		0.3152	0.3152	0.0000	1,443.2558	1,443.2558	0.4585		1,454.7173

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	lb/day										lb/day					
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
Vendor	5.3500e-003	0.1852	0.0577	7.6000e-004	0.0226	1.0300e-003	0.0236	6.5600e-003	9.9000e-004	7.5500e-003		81.7537	81.7537	2.0200e-003	0.0120	85.3754
Worker	0.0438	0.0211	0.3543	9.0000e-004	0.0912	5.1000e-004	0.0917	0.0243	4.7000e-004	0.0248		92.5209	92.5209	2.5400e-003	2.2700e-003	93.2614
Total	0.0492	0.2063	0.4120	1.6600e-003	0.1137	1.5400e-003	0.1153	0.0309	1.4600e-003	0.0324		174.2745	174.2745	4.5600e-003	0.0143	178.6368

Cordova Park 69 kV - Paving - Sacramento County, Winter

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

**Cordova Park 69 kV - Paving
Sacramento County, Winter**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.76	User Defined Unit	0.76	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Paved area along Rossmoor Dr 4,125' by 8'

Construction Phase - 12 months of paving

Off-road Equipment - Applicant approved equipment list

Trips and VMT - Default number of workers assumed for all activities; 2 trucks assumed for a material haul truck and water truck

Construction Off-road Equipment Mitigation - The project would comply with SMAQMD Basic Construction Emissions Controls Practices (BMPs).

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	260.00

Cordova Park 69 kV - Paving - Sacramento County, Winter

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

tblLandUse	LotAcreage	0.00	0.76
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	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
Year	lb/day										lb/day					
2022	0.8103	7.7774	10.1611	0.0167	0.1230	0.3875	0.5105	0.0332	0.3574	0.3906	0.0000	1,612.0656	1,612.0656	0.4638	0.0152	1,628.2002
2023	0.7558	7.1325	10.1236	0.0166	0.1230	0.3432	0.4662	0.0332	0.3166	0.3498	0.0000	1,607.3682	1,607.3682	0.4634	0.0146	1,623.3094
Maximum	0.8103	7.7774	10.1611	0.0167	0.1230	0.3875	0.5105	0.0332	0.3574	0.3906	0.0000	1,612.0656	1,612.0656	0.4638	0.0152	1,628.2002

Mitigated Construction

	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
--	-----	-----	----	-----	---------------	--------------	------------	----------------	---------------	-------------	----------	-----------	-----------	-----	-----	------

Cordova Park 69 kV - Paving - Sacramento County, Winter

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

Year	lb/day										lb/day					
2022	0.8103	7.7774	10.1611	0.0167	0.1137	0.3875	0.5012	0.0309	0.3574	0.3883	0.0000	1,612.0656	1,612.0656	0.4638	0.0152	1,628.2002
2023	0.7558	7.1325	10.1236	0.0166	0.1137	0.3432	0.4569	0.0309	0.3166	0.3475	0.0000	1,607.3682	1,607.3682	0.4634	0.0146	1,623.3094
Maximum	0.8103	7.7774	10.1611	0.0167	0.1137	0.3875	0.5012	0.0309	0.3574	0.3883	0.0000	1,612.0656	1,612.0656	0.4638	0.0152	1,628.2002

	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	7.54	0.00	1.90	6.87	0.00	0.62	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	Paving	Paving	7/25/2022	7/21/2023	5	260	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Cement and Mortar Mixers	1	6.00	9	0.56

Cordova Park 69 kV - Paving - Sacramento County, Winter

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

Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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
Paving	5	13.00	4.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Paving - 2022

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	lb/day										lb/day					
Off-Road	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549		1,442.9563	1,442.9563	0.4584		1,454.4154
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549		1,442.9563	1,442.9563	0.4584		1,454.4154

Cordova Park 69 kV - Paving - Sacramento County, Winter

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

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0241	2.1300e-003	0.0262	6.9400e-003	2.0400e-003	8.9800e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	0.0416	0.0292	0.3331	8.3000e-004	0.0989	5.4000e-004	0.0994	0.0262	4.9000e-004	0.0267		84.4715	84.4715	3.2300e-003	2.8200e-003	85.3918
Total	0.0501	0.2632	0.4016	1.6200e-003	0.1230	2.6700e-003	0.1257	0.0332	2.5300e-003	0.0357		169.1092	169.1092	5.4300e-003	0.0152	173.7848

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	lb/day										lb/day					
Off-Road	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549	0.0000	1,442.9563	1,442.9563	0.4584		1,454.4154
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Cordova Park 69 kV - Paving - Sacramento County, Winter

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

Total	0.7602	7.5142	9.7595	0.0151		0.3848	0.3848		0.3549	0.3549	0.0000	1,442.9563	1,442.9563	0.4584		1,454.4154
--------------	---------------	---------------	---------------	---------------	--	---------------	---------------	--	---------------	---------------	---------------	-------------------	-------------------	---------------	--	-------------------

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	lb/day										lb/day					
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
Vendor	8.5100e-003	0.2340	0.0685	7.9000e-004	0.0226	2.1300e-003	0.0247	6.5600e-003	2.0400e-003	8.6000e-003		84.6378	84.6378	2.2000e-003	0.0124	88.3931
Worker	0.0416	0.0292	0.3331	8.3000e-004	0.0912	5.4000e-004	0.0917	0.0243	4.9000e-004	0.0248		84.4715	84.4715	3.2300e-003	2.8200e-003	85.3918
Total	0.0501	0.2632	0.4016	1.6200e-003	0.1137	2.6700e-003	0.1164	0.0309	2.5300e-003	0.0334		169.1092	169.1092	5.4300e-003	0.0152	173.7848

3.2 Paving - 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	lb/day										lb/day					
Off-Road	0.7118	6.9076	9.7547	0.0151		0.3417	0.3417		0.3152	0.3152		1,443.2558	1,443.2558	0.4585		1,454.7173

Cordova Park 69 kV - Paving - Sacramento County, Winter

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

Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000	
Total	0.7118	6.9076	9.7547	0.0151		0.3417	0.3417		0.3152	0.3152			1,443.2558	1,443.2558	0.4585		1,454.7173

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	lb/day										lb/day					
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
Vendor	5.1700e-003	0.1991	0.0603	7.6000e-004	0.0241	1.0500e-003	0.0251	6.9400e-003	1.0000e-003	7.9400e-003		81.8123	81.8123	2.0100e-003	0.0120	85.4423
Worker	0.0388	0.0258	0.3086	8.0000e-004	0.0989	5.1000e-004	0.0994	0.0262	4.7000e-004	0.0267		82.3002	82.3002	2.9200e-003	2.6100e-003	83.1498
Total	0.0440	0.2249	0.3689	1.5600e-003	0.1230	1.5600e-003	0.1245	0.0332	1.4700e-003	0.0346		164.1124	164.1124	4.9300e-003	0.0146	168.5922

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	lb/day										lb/day					

Cordova Park 69 kV - Paving - Sacramento County, Winter

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

Off-Road	0.7118	6.9076	9.7547	0.0151		0.3417	0.3417		0.3152	0.3152	0.0000	1,443.2558	1,443.2558	0.4585		1,454.7173
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7118	6.9076	9.7547	0.0151		0.3417	0.3417		0.3152	0.3152	0.0000	1,443.2558	1,443.2558	0.4585		1,454.7173

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	lb/day										lb/day					
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
Vendor	5.1700e-003	0.1991	0.0603	7.6000e-004	0.0226	1.0500e-003	0.0236	6.5600e-003	1.0000e-003	7.5600e-003		81.8123	81.8123	2.0100e-003	0.0120	85.4423
Worker	0.0388	0.0258	0.3086	8.0000e-004	0.0912	5.1000e-004	0.0917	0.0243	4.7000e-004	0.0248		82.3002	82.3002	2.9200e-003	2.6100e-003	83.1498
Total	0.0440	0.2249	0.3689	1.5600e-003	0.1137	1.5600e-003	0.1153	0.0309	1.4700e-003	0.0324		164.1124	164.1124	4.9300e-003	0.0146	168.5922

12kV Underground Cable Replacement Construction Fuel Use

Construction Offroad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of days	Average Daily Factor	Diesel Fuel Usage
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40	16	0.6	379
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37	16	0.6	138
Trenching	Excavators	1	8.00	158	0.38	16	0.6	231
Trenching	Graders	1	8.00	187	0.41	16	0.6	294
Trenching	Rubber Tired Dozers	1	8.00	247	0.40	16	0.6	379
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37	16	0.6	138
Cable Laying/Vaulting	Cranes	1	7.00	231	0.29	16	0.6	225
Cable Laying/Vaulting	Forklifts	1	8.00	89	0.20	16	0.6	68
Cable Laying/Vaulting	Generator Sets	1	8.00	84	0.74	16	0.6	239
Cable Laying/Vaulting	Tractors/Loaders/Backhoes	1	7.00	97	0.37	16	0.6	121
Cable Laying/Vaulting	Welders	1	8.00	46	0.45	16	0.6	79
Paving	Pavers	1	8.00	130	0.42	16	0.6	210
Paving	Paving Equipment	1	8.00	132	0.36	16	0.6	182
Paving	Rollers	1	8.00	80	0.38	16	1.6	311
Paving	Cement and Mortar Mixers	1	6.00	9	0.56	16	2.6	63
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37	16	3.6	827
TOTAL								3,885

Schedule

Year	Start Date	End Date	Days
2022	7/1/2022	7/22/2022	16

Notes: Equipment assumptions are consistent with CalEEMod. Fuel usage average of 0.05 gallons of diesel fuel per horsepower-hour is from the SCAQMD CEQA Air Quality Handbook, Table A9-3E.

Trips and VMT - 2022

Phase Name	Daily Worker Trip	Daily Vendor Trip	Daily Haul Trip	Days per Year	Total Worker Trips	Total Vendor Trips	Total Haul Trips	Worker Trip Length (miles)	Vendor Trip Length (miles)	Haul Trip Length (miles)	Total Worker Trip Length (miles)	Total Vendor Trip Length (miles)	Total Haul Trip Length (miles)	Average Daily Factor	Total gallons of gasoline (on-road)	Total gallons of diesel (on-road)
Site Preparation	5	4	0	16	80	64	0	10.00	6.50	20.00	800	416	0	0.6	10,497	0
Trenching	0	4	0	16	0	64	0	10.00	6.50	20.00	0	416	0	0.6	0	0
Cable Laying/Vaulting	10	4	0	16	160	64	0	10.00	6.50	20.00	1600	416	0	0.6	20,993	1,507
Paving	13	4	0	16	208	64	0	15.00	9.00	20.00	3120	576	0	0.6	40,937	0
TOTAL														72,427	1,507	

Notes: Consistent with CalEEMod, worker vehicles assumed to be gasoline and 50% LDA, 25% LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy-Duty Trucks (T7).

Summary

	Gallons of Gasoline	Gallons of Diesel
TOTAL	72,427	5,392

69kV Underground Cable Replacement Construction Fuel Use

Construction Offroad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of days	Average Daily Factor	Diesel Fuel Usage
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40	266	0.6	6,307
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37	266	0.6	2,291
Trenching	Excavators	1	8.00	158	0.38	266	0.6	3,833
Trenching	Graders	1	8.00	187	0.41	266	0.6	4,895
Trenching	Rubber Tired Dozers	1	8.00	247	0.40	266	0.6	6,307
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37	266	0.6	2,291
Cable Laying/Vaulting	Cranes	1	7.00	231	0.29	266	0.6	3,742
Cable Laying/Vaulting	Forklifts	1	8.00	89	0.20	266	0.6	1,136
Cable Laying/Vaulting	Generator Sets	1	8.00	84	0.74	266	0.6	3,968
Cable Laying/Vaulting	Tractors/Loaders/Backhoes	1	7.00	97	0.37	266	0.6	2,005
Cable Laying/Vaulting	Welders	1	8.00	46	0.45	266	0.6	1,321
Paving	Pavers	1	8.00	130	0.42	266	0.6	3,486
Paving	Paving Equipment	1	8.00	132	0.36	266	0.6	3,034
Paving	Rollers	1	8.00	80	0.38	266	1.6	5,175
Paving	Cement and Mortar Mixers	1	6.00	9	0.56	266	2.6	1,046
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37	266	3.6	13,747
TOTAL								64,585

Schedule

Year	Start Date	End Date	Days
2022	7/15/2022	12/31/2022	121
2023	1/1/2023	7/21/2023	145

Notes: Equipment assumptions are consistent with CalEEMod. Fuel usage average of 0.05 gallons of diesel fuel per horsepower-hour is from the SCAQMD CEQA Air Quality Handbook, Table A9-3E.

Trips and VMT - 2022

Phase Name	Daily Worker Trip	Daily Vendor Trip	Daily Haul Trip	Days per Year	Total Worker Trips	Total Vendor Trips	Total Haul Trips	Worker Trip Length (miles)	Vendor Trip Length (miles)	Haul Trip Length (miles)	Total Worker Trip Length (miles)	Total Vendor Trip Length (miles)	Total Haul Trip Length (miles)	Average Daily Factor	Total gallons of gasoline (on-road)	Total gallons of diesel (on-road)
Site Preparation	5	4	0	121	605	484	0	10.00	6.50	20.00	6050	3146	0	0.6	79,381	0
Trenching	0	4	0	121	0	484	0	10.00	6.50	20.00	0	3146	0	0.6	0	0
Cable Laying/Vaulting	10	4	0	121	1210	484	0	10.00	6.50	20.00	12100	3146	0	0.6	158,762	11,398
Paving	13	4	0	121	1573	484	0	15.00	9.00	20.00	23595	4356	0	0.6	309,585	0
TOTAL														547,728	11,398	

Notes: Consistent with CalEEMod, worker vehicles assumed to be gasoline and 50% LDA, 25% LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy-Duty Trucks (T7).

Trips and VMT - 2023

Phase Name	Daily Worker Trip	Daily Vendor Trip	Daily Haul Trip	Days per Year	Total Worker Trips	Total Vendor Trips	Total Haul Trips	Worker Trip Length (miles)	Vendor Trip Length (miles)	Haul Trip Length (miles)	Total Worker Trip Length (miles)	Total Vendor Trip Length (miles)	Total Haul Trip Length (miles)	Average Daily Factor	Total gallons of gasoline (on-road)	Total gallons of diesel (on-road)
Site Preparation	5	4	0	145	725	580	0	10.00	6.50	20.00	7250	3770	0	0.6	112,064	0
Trenching	0	4	0	145	0	580	0	10.00	6.50	20.00	0	3770	0	0.6	0	0
Cable Laying/Vaulting	10	4	0	145	1450	580	0	10.00	6.50	20.00	14500	3770	0	0.6	224,127	13,738
Paving	13	4	1	145	1885	580	145	15.00	9.00	20.00	28275	5220	2900	0.6	370,991	0
TOTAL														707,182	13,738	

Notes: Consistent with CalEEMod, worker vehicles assumed to be gasoline and 50% LDA, 25% LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy-Duty Trucks (T7).

Summary

	Gallons of Gasoline	Gallons of Diesel
TOTAL	1,254,910	89,721

Source: EMFAC2021 (v1.0.1) Emissions Inventory

Region Type: County

Region: Sacramento

Calendar Year: 2022

Season: Annual

Vehicle Classification: EMFAC2011 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CaYr	VehClass	MdYr	Speed	Fuel	Population	VMT	Trips	Fuel gas	Diesel gas	Miles per gallon	miles per gallon	Diesel miles per gallon
				miles/hr									
Sacramento	2022	LDA	Aggregate	Aggregate	Gasoline	498280.32	17917435.6	2295902.336	644.537125	0.00	27.80	21.87	6.04
Sacramento	2022	LDT1	Aggregate	Aggregate	Gasoline	53385.045	1674043.998	234015.9091	71.26492603	0.00	23.49		
Sacramento	2022	LHD2	Aggregate	Aggregate	Gasoline	3110.113	114469.261	46336.05005	13.65366167	0.00	8.38		
Sacramento	2022	T7 Tractor	Aggregate	Aggregate	Diesel	874.69142	72842.33002	12709.26638		12.06334267	6.04		

Notes: Consistent with CalEEMod, worker vehicles assumed to be gasoline and 50% LDA, 25% LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy-Duty Trucks (T7).

Source: EMFAC2021 (v1.0.1) Emissions Inventory

Region Type: County

Region: Sacramento

Calendar Year: 2023

Season: Annual

Vehicle Classification: EMFAC2011 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CaYr	VehClass	MdYr	Speed	Fuel	Population	VMT	Trips	Fuel gas	Diesel gas	Miles per gallon	miles per gallon	Diesel miles per gallon
				miles/hr									
Sacramento	2023	LDA	Aggregate	Aggregate	Gasoline	495444.17	18039887.07	2281180.251	638.6074247	0.00	28.25	25.76	6.07
Sacramento	2023	LDT1	Aggregate	Aggregate	Gasoline	51757.601	1638073.93	226418.361	68.8387086	0.00	23.80		
Sacramento	2023	LDT2	Aggregate	Aggregate	Gasoline	228403.23	8495404.827	1060056.933	373.3642939	0.00	22.75		
Sacramento	2023	T7 Tractor	Aggregate	Aggregate	Diesel	917.75428	74396.80266	13334.96964		12.25004566	6.07		

Notes: Consistent with CalEEMod, worker vehicles assumed to be gasoline and 50% LDA, 25% LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy-Duty Trucks (T7).

12kV Underground Cable Replacement Construction Fuel Use

Construction Offroad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of days	Average Daily Factor	Diesel Fuel Usage
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40	16	0.6	379
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37	16	0.6	138
Trenching	Excavators	1	8.00	158	0.38	16	0.6	231
Trenching	Graders	1	8.00	187	0.41	16	0.6	294
Trenching	Rubber Tired Dozers	1	8.00	247	0.40	16	0.6	379
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37	16	0.6	138
Cable Laying/Vaulting	Cranes	1	7.00	231	0.29	16	0.6	225
Cable Laying/Vaulting	Forklifts	1	8.00	89	0.20	16	0.6	68
Cable Laying/Vaulting	Generator Sets	1	8.00	84	0.74	16	0.6	239
Cable Laying/Vaulting	Tractors/Loaders/Backhoes	1	7.00	97	0.37	16	0.6	121
Cable Laying/Vaulting	Welders	1	8.00	46	0.45	16	0.6	79
Paving	Pavers	1	8.00	130	0.42	16	0.6	210
Paving	Paving Equipment	1	8.00	132	0.36	16	0.6	182
Paving	Rollers	1	8.00	80	0.38	16	1.6	311
Paving	Cement and Mortar Mixers	1	6.00	9	0.56	16	2.6	63
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37	16	3.6	827
TOTAL								3,885

Schedule

Year	Start Date	End Date	Days
2022	7/1/2022	7/22/2022	16

Notes: Equipment assumptions are consistent with CalEEMod. Fuel usage average of 0.05 gallons of diesel fuel per horsepower-hour is from the SCAQMD CEQA Air Quality Handbook, Table A9-3E.

Trips and VMT - 2022

Phase Name	Daily Worker Trip	Daily Vendor Trip	Daily Haul Trip	Days per Year	Total Worker Trips	Total Vendor Trips	Total Haul Trips	Worker Trip Length (miles)	Vendor Trip Length (miles)	Haul Trip Length (miles)	Total Worker Trip Length (miles)	Total Vendor Trip Length (miles)	Total Haul Trip Length (miles)	Average Daily Factor	Total gallons of gasoline (on-road)	Total gallons of diesel (on-road)
Site Preparation	5	4	0	16	80	64	0	10.00	6.50	20.00	800	416	0	0.6	10,497	0
Trenching	0	4	0	16	0	64	0	10.00	6.50	20.00	0	416	0	0.6	0	0
Cable Laying/Vaulting	10	4	0	16	160	64	0	10.00	6.50	20.00	1600	416	0	0.6	20,993	1,507
Paving	13	4	0	16	208	64	0	15.00	9.00	20.00	3120	576	0	0.6	40,937	0
TOTAL														72,427	1,507	

Notes: Consistent with CalEEMod, worker vehicles assumed to be gasoline and 50% LDA, 25% LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy-Duty Trucks (T7).

Summary

	Gallons of Gasoline	Gallons of Diesel
TOTAL	72,427	5,392

69kV Underground Cable Replacement Construction Fuel Use

Construction Offroad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of days	Average Daily Factor	Diesel Fuel Usage
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40	266	0.6	6,307
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37	266	0.6	2,291
Trenching	Excavators	1	8.00	158	0.38	266	0.6	3,833
Trenching	Graders	1	8.00	187	0.41	266	0.6	4,895
Trenching	Rubber Tired Dozers	1	8.00	247	0.40	266	0.6	6,307
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37	266	0.6	2,291
Cable Laying/Vaulting	Cranes	1	7.00	231	0.29	266	0.6	3,742
Cable Laying/Vaulting	Forklifts	1	8.00	89	0.20	266	0.6	1,136
Cable Laying/Vaulting	Generator Sets	1	8.00	84	0.74	266	0.6	3,968
Cable Laying/Vaulting	Tractors/Loaders/Backhoes	1	7.00	97	0.37	266	0.6	2,005
Cable Laying/Vaulting	Welders	1	8.00	46	0.45	266	0.6	1,321
Paving	Pavers	1	8.00	130	0.42	266	0.6	3,486
Paving	Paving Equipment	1	8.00	132	0.36	266	0.6	3,034
Paving	Rollers	1	8.00	80	0.38	266	1.6	5,175
Paving	Cement and Mortar Mixers	1	6.00	9	0.56	266	2.6	1,046
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37	266	3.6	13,747
TOTAL								64,585

Schedule

Year	Start Date	End Date	Days
2022	7/15/2022	12/31/2022	121
2023	1/1/2023	7/21/2023	145

Notes: Equipment assumptions are consistent with CalEEMod. Fuel usage average of 0.05 gallons of diesel fuel per horsepower-hour is from the SCAQMD CEQA Air Quality Handbook, Table A9-3E.

Trips and VMT - 2022

Phase Name	Daily Worker Trip	Daily Vendor Trip	Daily Haul Trip	Days per Year	Total Worker Trips	Total Vendor Trips	Total Haul Trips	Worker Trip Length (miles)	Vendor Trip Length (miles)	Haul Trip Length (miles)	Total Worker Trip Length (miles)	Total Vendor Trip Length (miles)	Total Haul Trip Length (miles)	Average Daily Factor	Total gallons of gasoline (on-road)	Total gallons of diesel (on-road)
Site Preparation	5	4	0	121	605	484	0	10.00	6.50	20.00	6050	3146	0	0.6	79,381	0
Trenching	0	4	0	121	0	484	0	10.00	6.50	20.00	0	3146	0	0.6	0	0
Cable Laying/Vaulting	10	4	0	121	1210	484	0	10.00	6.50	20.00	12100	3146	0	0.6	158,762	11,398
Paving	13	4	0	121	1573	484	0	15.00	9.00	20.00	23595	4356	0	0.6	309,585	0
TOTAL														547,728	11,398	

Notes: Consistent with CalEEMod, worker vehicles assumed to be gasoline and 50% LDA, 25% LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy-Duty Trucks (T7).

Trips and VMT - 2023

Phase Name	Daily Worker Trip	Daily Vendor Trip	Daily Haul Trip	Days per Year	Total Worker Trips	Total Vendor Trips	Total Haul Trips	Worker Trip Length (miles)	Vendor Trip Length (miles)	Haul Trip Length (miles)	Total Worker Trip Length (miles)	Total Vendor Trip Length (miles)	Total Haul Trip Length (miles)	Average Daily Factor	Total gallons of gasoline (on-road)	Total gallons of diesel (on-road)
Site Preparation	5	4	0	145	725	580	0	10.00	6.50	20.00	7250	3770	0	0.6	112,064	0
Trenching	0	4	0	145	0	580	0	10.00	6.50	20.00	0	3770	0	0.6	0	0
Cable Laying/Vaulting	10	4	0	145	1450	580	0	10.00	6.50	20.00	14500	3770	0	0.6	224,127	13,738
Paving	13	4	1	145	1885	580	145	15.00	9.00	20.00	28275	5220	2900	0.6	370,991	0
TOTAL														707,182	13,738	

Notes: Consistent with CalEEMod, worker vehicles assumed to be gasoline and 50% LDA, 25% LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy-Duty Trucks (T7).

Summary

	Gallons of Gasoline	Gallons of Diesel
TOTAL	1,254,910	89,721

Source: EMFAC2021 (v1.0.1) Emissions Inventory

Region Type: County

Region: Sacramento

Calendar Year: 2022

Season: Annual

Vehicle Classification: EMFAC2011 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CaYr	VehClass	MdYr	Speed	Fuel	Population	VMT	Trips	Fuel gas	Diesel gas	Miles per gallon	miles per gallon	Diesel miles per gallon
				miles/hr									
Sacramento	2022	LDA	Aggregate	Aggregate	Gasoline	498280.32	17917435.6	2295902.336	644.537125	0.00	27.80	21.87	6.04
Sacramento	2022	LDT1	Aggregate	Aggregate	Gasoline	53385.045	1674043.998	234015.9091	71.26492603	0.00	23.49		
Sacramento	2022	LHD2	Aggregate	Aggregate	Gasoline	3110.113	114469.261	46336.05005	13.65366167	0.00	8.38		
Sacramento	2022	T7 Tractor	Aggregate	Aggregate	Diesel	874.69142	72842.33002	12709.26638		12.06334267	6.04		

Notes: Consistent with CalEEMod, worker vehicles assumed to be gasoline and 50% LDA, 25% LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy-Duty Trucks (T7).

Source: EMFAC2021 (v1.0.1) Emissions Inventory

Region Type: County

Region: Sacramento

Calendar Year: 2023

Season: Annual

Vehicle Classification: EMFAC2011 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CaYr	VehClass	MdYr	Speed	Fuel	Population	VMT	Trips	Fuel gas	Diesel gas	Miles per gallon	miles per gallon	Diesel miles per gallon
				miles/hr									
Sacramento	2023	LDA	Aggregate	Aggregate	Gasoline	495444.17	18039887.07	2281180.251	638.6074247	0.00	28.25	25.76	6.07
Sacramento	2023	LDT1	Aggregate	Aggregate	Gasoline	51757.601	1638073.93	226418.361	68.8387086	0.00	23.80		
Sacramento	2023	LDT2	Aggregate	Aggregate	Gasoline	228403.23	8495404.827	1060056.933	373.3642939	0.00	22.75		
Sacramento	2023	T7 Tractor	Aggregate	Aggregate	Diesel	917.75428	74396.80266	13334.96964		12.25004566	6.07		

Notes: Consistent with CalEEMod, worker vehicles assumed to be gasoline and 50% LDA, 25% LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy-Duty Trucks (T7).