

Mesa Substation Project - Well Decommissioning South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2016
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Schedule provided by SCE

Off-road Equipment -

Off-road Equipment - Equipment list provided by SCE

Trips and VMT - On road vehicle trips provided by SCE

Demolition -

Construction Off-road Equipment Mitigation - All equipment pieces mitigated to Tier 3

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	0.00	18.00
tblOffRoadEquipment	HorsePower	205.00	250.00
tblOffRoadEquipment	HorsePower	400.00	97.00
tblOffRoadEquipment	LoadFactor	0.50	0.73
tblOffRoadEquipment	LoadFactor	0.38	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Well Decommissioning
tblOffRoadEquipment	PhaseName		Well Decommissioning
tblProjectCharacteristics	OperationalYear	2014	2016

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					
2016	6.3100e-003	0.0932	0.0429	1.8000e-004	2.5100e-003	2.6300e-003	5.1400e-003	5.9000e-004	2.4200e-003	3.0100e-003	0.0000	16.2405	16.2405	4.0400e-003	0.0000	16.3255
Total	6.3100e-003	0.0932	0.0429	1.8000e-004	2.5100e-003	2.6300e-003	5.1400e-003	5.9000e-004	2.4200e-003	3.0100e-003	0.0000	16.2405	16.2405	4.0400e-003	0.0000	16.3255

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					
2016	4.2100e-003	0.0763	0.0854	1.8000e-004	2.0700e-003	2.7100e-003	4.7800e-003	5.2000e-004	2.7000e-003	3.2200e-003	0.0000	16.2405	16.2405	4.0400e-003	0.0000	16.3254
Total	4.2100e-003	0.0763	0.0854	1.8000e-004	2.0700e-003	2.7100e-003	4.7800e-003	5.2000e-004	2.7000e-003	3.2200e-003	0.0000	16.2405	16.2405	4.0400e-003	0.0000	16.3254

	ROG	NOx	CO	SO2	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	33.28	18.11	-99.04	0.00	17.53	-3.04	7.00	11.86	-11.57	-6.98	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	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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
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Category	tons/yr										MT/yr				
	Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

	ROG	NOx	CO	SO2	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	Well Decommissioning	Demolition	6/13/2016	7/6/2016	5	18	Decommission 10 Groundwater Monitoring Wells

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Well Decommissioning	Bore/Drill Rigs	1	8.00	250	0.73
Well Decommissioning	Off-Highway Trucks	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
Well Decommissioning	0	5.00	2.00	11.00	30.00	30.00	45.00	LD_Mix	HDT_Mix	HDT_Mix

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Well Decommissioning - 2016

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					8.0000e-004	0.0000	8.0000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.5800e-003	0.0841	0.0328	1.4000e-004		2.4700e-003	2.4700e-003		2.2700e-003	2.2700e-003	0.0000	13.1959	13.1959	3.9800e-003	0.0000	13.2795
Total	5.5800e-003	0.0841	0.0328	1.4000e-004	8.0000e-004	2.4700e-003	3.2700e-003	1.2000e-004	2.2700e-003	2.3900e-003	0.0000	13.1959	13.1959	3.9800e-003	0.0000	13.2795

Unmitigated Construction Off-Site

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

Hauling	1.4000e-004	2.6600e-003	1.3300e-003	1.0000e-005	2.2000e-004	5.0000e-005	2.7000e-004	6.0000e-005	4.0000e-005	1.1000e-004	0.0000	0.6604	0.6604	0.0000	0.0000	0.6605
Vendor	3.4000e-004	5.9100e-003	3.4600e-003	2.0000e-005	4.8000e-004	1.1000e-004	5.9000e-004	1.4000e-004	1.0000e-004	2.4000e-004	0.0000	1.4502	1.4502	1.0000e-005	0.0000	1.4504
Worker	2.5000e-004	5.2000e-004	5.2900e-003	1.0000e-005	1.0100e-003	1.0000e-005	1.0200e-003	2.7000e-004	1.0000e-005	2.7000e-004	0.0000	0.9341	0.9341	5.0000e-005	0.0000	0.9351
Total	7.3000e-004	9.0900e-003	0.0101	4.0000e-005	1.7100e-003	1.7000e-004	1.8800e-003	4.7000e-004	1.5000e-004	6.2000e-004	0.0000	3.0446	3.0446	6.0000e-005	0.0000	3.0459

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					3.6000e-004	0.0000	3.6000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4800e-003	0.0672	0.0753	1.4000e-004		2.5500e-003	2.5500e-003		2.5500e-003	2.5500e-003	0.0000	13.1959	13.1959	3.9800e-003	0.0000	13.2795
Total	3.4800e-003	0.0672	0.0753	1.4000e-004	3.6000e-004	2.5500e-003	2.9100e-003	5.0000e-005	2.5500e-003	2.6000e-003	0.0000	13.1959	13.1959	3.9800e-003	0.0000	13.2795

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-004	2.6600e-003	1.3300e-003	1.0000e-005	2.2000e-004	5.0000e-005	2.7000e-004	6.0000e-005	4.0000e-005	1.1000e-004	0.0000	0.6604	0.6604	0.0000	0.0000	0.6605
Vendor	3.4000e-004	5.9100e-003	3.4600e-003	2.0000e-005	4.8000e-004	1.1000e-004	5.9000e-004	1.4000e-004	1.0000e-004	2.4000e-004	0.0000	1.4502	1.4502	1.0000e-005	0.0000	1.4504
Worker	2.5000e-004	5.2000e-004	5.2900e-003	1.0000e-005	1.0100e-003	1.0000e-005	1.0200e-003	2.7000e-004	1.0000e-005	2.7000e-004	0.0000	0.9341	0.9341	5.0000e-005	0.0000	0.9351

Total	7.3000e-004	9.0900e-003	0.0101	4.0000e-005	1.7100e-003	1.7000e-004	1.8800e-003	4.7000e-004	1.5000e-004	6.2000e-004	0.0000	3.0446	3.0446	6.0000e-005	0.0000	3.0459
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4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.514315	0.060290	0.180146	0.139458	0.042007	0.006636	0.015782	0.029894	0.001929	0.002512	0.004343	0.000595	0.002093

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

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

Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

Mesa Substation Project - Well Decommissioning

South Coast Air Basin, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Well Decommissioning	0.33	0.18	-0.99	0.00	-0.03	-0.12	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Bore/Drill Rigs	Diesel	Tier 3	1	1	No Change	0.00
Off-Highway Trucks	Diesel	Tier 3	1	1	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Unmitigated tons/yr						Unmitigated mt/yr						
Bore/Drill Rigs	5.58000E-003	8.40700E-002	3.28200E-002	1.40000E-004	2.47000E-003	2.27000E-003	0.00000E+000	1.31959E+001	1.31959E+001	3.98000E-003	0.00000E+000	1.32795E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated tons/yr						Mitigated mt/yr						
Bore/Drill Rigs	3.48000E-003	6.72100E-002	7.53200E-002	1.40000E-004	2.55000E-003	2.55000E-003	0.00000E+000	1.31959E+001	1.31959E+001	3.98000E-003	0.00000E+000	1.32795E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Bore/Drill Rigs	3.76344E-001	2.00547E-001	-1.29494E+000	0.00000E+000	-3.23887E-002	-1.23348E-001	0.00000E+000	7.57810E-007	7.57810E-007	0.00000E+000	0.00000E+000	1.50608E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input	Mitigation Input	Mitigation Input
Yes	Soil Stabilizer for unpaved Roads	PM10 Reduction	55.00	PM2.5 Reduction 55.00
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction 0.00
Yes	Water Exposed Area	PM10 Reduction	55.00	PM2.5 Reduction 55.00
No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph) 15.00
Yes	Clean Paved Road	% PM Reduction	0.00	Frequency (per day) 2.00

Phase	Source	Unmitigated		Mitigated		Percent Reduction	
		PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Well Decommissioning	Fugitive Dust	0.00	0.00	0.00	0.00	0.55	0.58
Well Decommissioning	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.00	0.15		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

No	Neighborhood Enhancements	Improve Pedestrian Network			
No	Neighborhood Enhancements	Provide Traffic Calming Measures			
No	Neighborhood Enhancements	Implement NEV Network	0.00		
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00		
No	Parking Policy Pricing	Limit Parking Supply	0.00		
No	Parking Policy Pricing	Unbundle Parking Costs	0.00		
No	Parking Policy Pricing	On-street Market Pricing	0.00		
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00		
No	Transit Improvements	Provide BRT System	0.00		
No	Transit Improvements	Expand Transit Network	0.00		
No	Transit Improvements	Increase Transit Frequency	0.00		
	Transit Improvements	Transit Improvements Subtotal	0.00		
		Land Use and Site Enhancement Subtotal	0.00		
No	Commute	Implement Trip Reduction Program			
No	Commute	Transit Subsidy			
No	Commute	Implement Employee Parking "Cash Out"			
No	Commute	Workplace Parking Charge			
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00		
No	Commute	Market Commute Trip Reduction Option	0.00		
No	Commute	Employee Vanpool/Shuttle	0.00		2.00
No	Commute	Provide Ride Sharing Program			
	Commute	Commute Subtotal	0.00		

No	School Trip	Implement School Bus Program	0.00		
		Total VMT Reduction	0.00		

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	50.00
No	Use Low VOC Paint (Residential Exterior)	100.00
No	Use Low VOC Paint (Non-residential Interior)	250.00
No	Use Low VOC Paint (Non-residential Exterior)	250.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00

DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		
No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction		
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape		

Solid Waste Mitigation

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

Mesa Substation Project - Well Decommissioning
South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2016
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Schedule provided by SCE

Off-road Equipment -

Off-road Equipment - Equipment list provided by SCE

Trips and VMT - On road vehicle trips provided by SCE

Demolition -

Construction Off-road Equipment Mitigation - All equipment pieces mitigated to Tier 3

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	0.00	18.00
tblOffRoadEquipment	HorsePower	205.00	250.00
tblOffRoadEquipment	HorsePower	400.00	97.00
tblOffRoadEquipment	LoadFactor	0.50	0.73
tblOffRoadEquipment	LoadFactor	0.38	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Well Decommissioning
tblOffRoadEquipment	PhaseName		Well Decommissioning
tblProjectCharacteristics	OperationalYear	2014	2016

2.0 Emissions Summary

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Well Decommissioning	Demolition	6/13/2016	7/6/2016	5	18	Decommission 10 Groundwater Monitoring Wells

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Well Decommissioning	Bore/Drill Rigs	1	8.00	250	0.73
Well Decommissioning	Off-Highway Trucks	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
Well Decommissioning	0	5.00	2.00	11.00	30.00	30.00	45.00	LD_Mix	HDT_Mix	HDT_Mix

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Well Decommissioning - 2016

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					0.0892	0.0000	0.0892	0.0135	0.0000	0.0135			0.0000			0.0000
Off-Road	0.6198	9.3411	3.6468	0.0156		0.2742	0.2742		0.2523	0.2523		1,616.2239	1,616.2239	0.4875		1,626.4616
Total	0.6198	9.3411	3.6468	0.0156	0.0892	0.2742	0.3634	0.0135	0.2523	0.2658		1,616.2239	1,616.2239	0.4875		1,626.4616

3.2 Well Decommissioning - 2016

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	0.0153	0.2792	0.1378	8.0000e-004	0.0248	5.4200e-003	0.0303	7.0600e-003	4.9900e-003	0.0121		80.9314	80.9314	5.1000e-004		80.9421
Vendor	0.0369	0.6224	0.3519	1.7700e-003	0.0542	0.0119	0.0661	0.0154	0.0109	0.0263		177.7692	177.7692	1.1400e-003		177.7930
Worker	0.0288	0.0507	0.6315	1.4300e-003	0.1140	9.1000e-004	0.1149	0.0302	8.4000e-004	0.0311		120.1493	120.1493	6.0500e-003		120.2762
Total	0.0809	0.9522	1.1212	4.0000e-003	0.1930	0.0182	0.2112	0.0527	0.0168	0.0695		378.8498	378.8498	7.7000e-003		379.0113

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					0.0401	0.0000	0.0401	6.0800e-003	0.0000	6.0800e-003			0.0000			0.0000
Off-Road	0.3863	7.4675	8.3688	0.0156		0.2833	0.2833		0.2833	0.2833	0.0000	1,616.2239	1,616.2239	0.4875		1,626.4616
Total	0.3863	7.4675	8.3688	0.0156	0.0401	0.2833	0.3234	6.0800e-003	0.2833	0.2893	0.0000	1,616.2239	1,616.2239	0.4875		1,626.4616

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.514315	0.060290	0.180146	0.139458	0.042007	0.006636	0.015782	0.029894	0.001929	0.002512	0.004343	0.000595	0.002093

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive 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					
Mitigated	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Unmitigated	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

Mesa Substation Project - Well Decommissioning

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2016
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Schedule provided by SCE

Off-road Equipment -

Off-road Equipment - Equipment list provided by SCE

Trips and VMT - On road vehicle trips provided by SCE

Demolition -

Construction Off-road Equipment Mitigation - All equipment pieces mitigated to Tier 3

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	0.00	18.00
tblOffRoadEquipment	HorsePower	205.00	250.00
tblOffRoadEquipment	HorsePower	400.00	97.00
tblOffRoadEquipment	LoadFactor	0.50	0.73
tblOffRoadEquipment	LoadFactor	0.38	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Well Decommissioning
tblOffRoadEquipment	PhaseName		Well Decommissioning
tblProjectCharacteristics	OperationalYear	2014	2016

2.0 Emissions Summary

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Well Decommissioning	Demolition	6/13/2016	7/6/2016	5	18	Decommission 10 Groundwater Monitoring Wells

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Well Decommissioning	Bore/Drill Rigs	1	8.00	250	0.73
Well Decommissioning	Off-Highway Trucks	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
Well Decommissioning	0	5.00	2.00	11.00	30.00	30.00	45.00	LD_Mix	HDT_Mix	HDT_Mix

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Well Decommissioning - 2016

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					0.0892	0.0000	0.0892	0.0135	0.0000	0.0135			0.0000			0.0000
Off-Road	0.6198	9.3411	3.6468	0.0156		0.2742	0.2742		0.2523	0.2523		1,616.2239	1,616.2239	0.4875		1,626.4616
Total	0.6198	9.3411	3.6468	0.0156	0.0892	0.2742	0.3634	0.0135	0.2523	0.2658		1,616.2239	1,616.2239	0.4875		1,626.4616

3.2 Well Decommissioning - 2016**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	0.0158	0.2900	0.1494	8.0000e-004	0.0248	5.4300e-003	0.0303	7.0600e-003	5.0000e-003	0.0121		80.8196	80.8196	5.1000e-004		80.8304
Vendor	0.0385	0.6455	0.3907	1.7600e-003	0.0542	0.0119	0.0661	0.0154	0.0109	0.0264		177.4035	177.4035	1.1400e-003		177.4275
Worker	0.0288	0.0557	0.5714	1.3400e-003	0.1140	9.1000e-004	0.1149	0.0302	8.4000e-004	0.0311		112.6357	112.6357	6.0500e-003		112.7627
Total	0.0830	0.9911	1.1115	3.9000e-003	0.1930	0.0182	0.2113	0.0527	0.0168	0.0695		370.8588	370.8588	7.7000e-003		371.0206

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					0.0401	0.0000	0.0401	6.0800e-003	0.0000	6.0800e-003			0.0000			0.0000
Off-Road	0.3863	7.4675	8.3688	0.0156		0.2833	0.2833		0.2833	0.2833	0.0000	1,616.2239	1,616.2239	0.4875		1,626.4616
Total	0.3863	7.4675	8.3688	0.0156	0.0401	0.2833	0.3234	6.0800e-003	0.2833	0.2893	0.0000	1,616.2239	1,616.2239	0.4875		1,626.4616

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.514315	0.060290	0.180146	0.139458	0.042007	0.006636	0.015782	0.029894	0.001929	0.002512	0.004343	0.000595	0.002093

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive 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					
Mitigated	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Unmitigated	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation
