

24th Street CSS Storage Custom Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	24th Street CSS Storage
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.00
Precipitation (days)	36.4
Location	38.571022435522536, -121.47696361762047
County	Sacramento
City	Sacramento
Air District	Sacramento Metropolitan AQMD
Air Basin	Sacramento Valley
TAZ	533
EDFZ	13
Electric Utility	Sacramento Municipal Utility District
Gas Utility	Pacific Gas & Electric

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
User Defined Linear	0.51	Mile	1.00	0.00	—	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.64	1.48	27.5	18.7	0.14	0.55	2.62	3.18	0.52	0.70	1.22	—	11,752	11,752	1.01	1.62	21.4	12,281
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.77	1.53	30.5	18.8	0.14	0.60	2.62	3.22	0.57	0.70	1.26	—	11,918	11,918	1.06	1.62	0.56	12,428
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.41	0.79	15.3	9.92	0.07	0.30	1.38	1.68	0.28	0.37	0.65	—	6,294	6,294	0.54	0.87	4.95	6,571
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.26	0.14	2.79	1.81	0.01	0.05	0.25	0.31	0.05	0.07	0.12	—	1,042	1,042	0.09	0.14	0.82	1,088

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.64	1.48	27.5	18.7	0.14	0.55	2.62	3.18	0.52	0.70	1.22	—	11,752	11,752	1.01	1.62	21.4	12,281

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	2.77	1.53	30.5	18.8	0.14	0.60	2.62	3.22	0.57	0.70	1.26	—	11,918	11,918	1.06	1.62	0.56	12,428
2024	2.63	1.46	28.9	18.5	0.14	0.55	2.62	3.18	0.52	0.70	1.22	—	11,733	11,733	1.01	1.62	0.55	12,241
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.50	0.28	5.43	3.37	0.02	0.11	0.46	0.57	0.10	0.12	0.23	—	2,147	2,147	0.19	0.29	1.67	2,240
2024	1.41	0.79	15.3	9.92	0.07	0.30	1.38	1.68	0.28	0.37	0.65	—	6,294	6,294	0.54	0.87	4.95	6,571
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.09	0.05	0.99	0.62	< 0.005	0.02	0.08	0.10	0.02	0.02	0.04	—	355	355	0.03	0.05	0.28	371
2024	0.26	0.14	2.79	1.81	0.01	0.05	0.25	0.31	0.05	0.07	0.12	—	1,042	1,042	0.09	0.14	0.82	1,088

3. Construction Emissions Details

3.1. Linear, Paving (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.41	1.17	9.33	11.0	0.02	0.42	—	0.42	0.39	—	0.39	—	1,656	1,656	0.07	0.01	—	1,662
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.21	1.68	1.98	< 0.005	0.08	—	0.08	0.07	—	0.07	—	298	298	0.01	< 0.005	—	299	
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—	
Onsite truck	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	0.00	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Off-Road Equipment	0.05	0.04	0.31	0.36	< 0.005	0.01	—	0.01	0.01	—	0.01	—	49.4	49.4	< 0.005	< 0.005	—	49.5	
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—	
Onsite truck	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	0.00	
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.05	0.05	0.06	0.62	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	126	126	< 0.005	< 0.005	0.02	127	
Vendor	0.01	< 0.005	0.26	0.09	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	120	120	0.01	0.02	0.01	125	
Hauling	1.30	0.30	20.9	7.06	0.12	0.17	0.75	0.92	0.17	0.23	0.40	—	10,016	10,016	0.99	1.58	0.53	10,514	
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.01	0.01	0.01	0.11	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	23.2	23.2	< 0.005	< 0.005	0.05	23.5	

Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	21.6	21.6	< 0.005	< 0.005	0.02	22.6
Hauling	0.23	0.06	3.70	1.26	0.02	0.03	0.13	0.17	0.03	0.04	0.07	—	1,804	1,804	0.18	0.29	1.59	1,895
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	3.84	3.84	< 0.005	< 0.005	0.01	3.90
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.57	3.57	< 0.005	< 0.005	< 0.005	3.74
Hauling	0.04	0.01	0.67	0.23	< 0.005	0.01	0.02	0.03	0.01	0.01	0.01	—	299	299	0.03	0.05	0.26	314

3.3. Linear, Paving (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.33	1.11	8.85	11.0	0.02	0.38	—	0.38	0.35	—	0.35	—	1,656	1,656	0.07	0.01	—	1,662
Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.33	1.11	8.85	11.0	0.02	0.38	—	0.38	0.35	—	0.35	—	1,656	1,656	0.07	0.01	—	1,662
Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.71	0.59	4.74	5.88	0.01	0.20	—	0.20	0.19	—	0.19	—	888	888	0.04	0.01	—	891	
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—	
Onsite truck	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	0.00	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Off-Road Equipment	0.13	0.11	0.87	1.07	< 0.005	0.04	—	0.04	0.03	—	0.03	—	147	147	0.01	< 0.005	—	148	
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—	
Onsite truck	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	0.00	
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.06	0.05	0.04	0.78	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	139	139	0.01	< 0.005	0.57	141	
Vendor	0.01	0.01	0.22	0.08	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	118	118	0.01	0.02	0.30	124	
Hauling	1.24	0.31	18.4	6.84	0.12	0.17	0.75	0.92	0.17	0.23	0.40	—	9,838	9,838	0.93	1.58	20.5	10,354	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.05	0.05	0.05	0.57	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	123	123	< 0.005	< 0.005	0.01	125	
Vendor	0.01	< 0.005	0.24	0.08	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	118	118	0.01	0.02	0.01	123	

Hauling	1.24	0.30	19.8	6.90	0.12	0.17	0.75	0.92	0.17	0.23	0.40	—	9,836	9,836	0.93	1.58	0.53	10,331
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.31	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	67.9	67.9	< 0.005	< 0.005	0.13	68.8
Vendor	0.01	< 0.005	0.13	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	63.2	63.2	< 0.005	0.01	0.07	66.2
Hauling	0.67	0.16	10.4	3.68	0.06	0.09	0.40	0.49	0.09	0.12	0.22	—	5,275	5,275	0.50	0.85	4.75	5,545
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	< 0.005	0.06	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	11.2	11.2	< 0.005	< 0.005	0.02	11.4
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.5	10.5	< 0.005	< 0.005	0.01	11.0
Hauling	0.12	0.03	1.90	0.67	0.01	0.02	0.07	0.09	0.02	0.02	0.04	—	873	873	0.08	0.14	0.79	918

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Project Construction	Linear, Paving	10/1/2023	9/30/2024	5.00	261	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Project Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Project Construction	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Project Construction	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Project Construction	Forklifts	Diesel	Average	1.00	4.00	82.0	0.20
Project Construction	Sweepers/Scrubbers	Diesel	Average	1.00	2.00	36.0	0.46

Project Construction	Generator Sets	Diesel	Average	2.00	10.0	14.0	0.74
Project Construction	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Project Construction	—	—	—	—
Project Construction	Worker	12.0	14.3	LDA,LDT1,LDT2
Project Construction	Vendor	4.00	8.80	HHDT,MHDT
Project Construction	Hauling	130	20.0	HHDT
Project Construction	Onsite truck	0.00	0.00	HHDT

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Project Construction	0.00	27,500	0.00	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Linear	2.90	100%

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Per engineering team - modeled as paving phase to capture paving emissions in later screens.
Construction: Off-Road Equipment	Per engineering team; equipment spread throughout entire alignment. Assumed to operate concurrently as worst-case scenario.
Construction: Dust From Material Movement	Per engineering team; no grading. Only underground excavation. Includes implementation of SMAQMD basic control practices.
Construction: Trips and VMT	Per engineering team. Worst-case maximum day over entire alignment.
Construction: Paving	Per engineering team; all re-paving