DOCKETED	
Docket Number:	23-AFC-01
Project Title:	Morton Bay Geothermal Project (MBGP)
TN #:	250006-3
Document Title:	Morton Bay Geothermal Project Air Quality Permit Application Part 2
Description:	N/A
Filer:	Jerry Salamy
Organization:	Jacobs
Submitter Role:	Applicant Consultant
Submission Date:	5/4/2023 2:03:18 PM
Docketed Date:	5/4/2023

Table 2.10 NCG Emissions During Normal Operation

[b] During sparger bypass operations, no emission controls are operational; therefore, the DRE for all pollutants is 0%.

Table 2.12 Total NCG Emissions during Normal Operation

BHE Renewables
Morton Bay Operational Emissions
Sparger Emission Summary
April 2023

Sparger Emission Summary

NCG Component	Sparger Bypass Emissions	Sparger Normal Operation Emissions	Total Stack Hourly Emissions	Total Stack Annual Emissions
Criteria Pollutant, GHG & Volatile/Non-Volatile Compound Calculations				
Pollutant	**(lbs/hr)**	**(lbs/hr)**	**(lbs/hr)**	**(tpy)**
NOx	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ROG	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CO	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SO_2	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PM_{10}	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Lead	0.00E+00	0.00E+00	0.00E+00	0.00E+00
$PM_{2.5}$	0.00E+00	0.00E+00	0.00E+00	0.00E+00
H_2S	8.15E+01	2.85E+00	8.15E+01	2.04E+01
NH_3	4.54E+02	1.36E+00	4.54E+02	5.12E+01
N_2	7.11E+01	7.11E+01	7.11E+01	3.12E+02
CH_4	3.81E+01	3.81E+01	3.81E+01	1.67E+02
H_2	4.07E-01	4.07E-01	4.07E-01	1.78E+00
As	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hg	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Benzene	4.47E-01	4.47E-01	4.47E-01	1.96E+00
Toluene	2.39E-03	2.39E-03	2.39E-03	1.05E-02
Ethylbenzene	1.98E-03	1.98E-03	1.98E-03	8.65E-03
Xylenes	1.98E-03	1.98E-03	1.98E-03	8.65E-03
Argon	2.04E-01	2.04E-01	2.04E-01	8.95E-01
CO_2	1.53E+04	1.53E+04	1.53E+04	6.68E+04
Formaldehyde	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PAH's (excluding naphthalene)	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Naphthalene	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acetaldehyde	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acrolein	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Propylene	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hexane	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Radon Calculations				
Pollutant	**(Ci/hr)**	**(Ci/hr)**	**(Ci/hr)**	**(Ci/year)**
Radon	1.30E-03	1.30E-03	1.30E-03	1.14E+01

NCG = Non-condensible gas
lbs/hr = pound(s) per hour
Ci = Curie(s)
Ci/hr = Curie(s) per hour
tpy = ton(s) per year

Table 2.13 Cooling Tower PM Emissions During Normal Operation

BHE Renewables
Morton Bay Operational Emissions
Cooling Tower Particulate Emission Data
April 2023

Cooling Tower Particulate Emission Calculations

Parameter	Units	Value	Data Source
Water Circulation Rate	gpm	230,000	2 banks of 7 cells X 115,000 gpm/bank
Total Liquid Drift	%	0.00050	BACT/Vendor
Maximum TDS of Circulated Water	ppmw	9,000	Highest Concentration Expected Based on Actuals from Other Applicant-owned Facilities
TDS in Make-up Water [a]	ppmw	690	IID 2021 lab sampling - Vail 4
Cycles of Concentration	Dimensionless	13	--
Fraction of TDS as PM_{10}	Mass Fraction	70%	South Coast Air Quality Management District. 2006. *Final- Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 Significance Thresholds.* Appendix A. October.
Fraction of TDS as $PM_{2.5}$	Mass Fraction	42%	South Coast Air Quality Management District. 2006. *Final- Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 Significance Thresholds.* Appendix A. October.
Emissions Summary			
TSP [b]	lbs/hr	5.18	--
PM_{10} [c]	lbs/hr	3.63	--
$PM_{2.5}$ [c]	lbs/hr	2.18	--

ppmw = part(s) per million by weight
gpm = gallon(s) per minute
lbs/hr = pound(s) per hour
TDS = Total Dissolved Solids

[a] TDS of make-up water assumed equal to the TDS in condensate.
[b] TSP emission rate calculated based on EPA's *AP-42*, Section 13.4, Table 13.4-1 (EPA 1995), modified to the Morton Bay design.
[c] PM_{10} and $PM_{2.5}$ emission rates calculated consistent with the TSP emission rate, assuming only a fraction of TDS is PM_{10} or $PM_{2.5}$, respectively.

Table 2.15 Cooling Tower TAC Emissions During Normal Operation

BHE Renewables

Morton Bay Operational Emissions
Cooling Tower TAC Emission Data
April 2023

Cooling Tower Recirculation Rate	230,000	gpm
Drift Eliminator Efficiency	0.00050%	
Cooling Tower Cylces of Concentration	8	
Cooling Tower Makeup Rate	4,224	gpm
Water Evaporated from Cooling Tower	3,695	gpm

Cooling Tower TAC Emission Calculations

Constituents	Concentration Analyzed in Condensate [a]	Hourly Emissions [b, c, d]
Non-Volatile Compound Calculations		
Pollutant	**(µg/L)**	**(lbs/hr)**
Aluminum	50	2.88E-05
Antimony	7.5	4.32E-06
As	470.5	2.71E-04
Barium	240	1.38E-04
Beryllium	0.5	2.88E-07
Cobalt	0.5	2.88E-07
Cadmium	1.5	8.64E-07
Total Chromium	2.5	1.44E-06
Copper	24	1.38E-05
Vanadium	2.5	1.44E-06
Lead	35.5	2.04E-05
Lithium	50	2.88E-05
Manganese	2,300	1.32E-03
Hg	26.8	1.54E-05
Nickel	6.1	3.51E-06
Selenium	79	4.55E-05
Total Silica	2,500	1.44E-03
Silver	2.5	1.44E-06
Strontium	50	2.88E-05
Zinc	1,425	8.20E-04
Volatile Compound Calculations		
Pollutant	**(µg/L)**	**(lbs/hr)**
Ammonia (mg/L)	55.8	1.18E+02
H_2S	N/A	2.72E+00
Benzene	0.25	5.3E-04
Ethylbenzene	0.25	5.3E-04
Toluene	0.25	5.3E-04
Xylenes (m+p+o)	0.5	1.1E-03
Radon Calculations		
Pollutant	**(Ci/L)**	**(Ci/hr)**
Radon	9.20E-13	8.82E-07

Table 2.15 Cooling Tower TAC Emissions During Normal Operation

µg/L = microgram(s) per liter
mg/L = milligram(s) per liter
gpm = gallon(s) per minute
lbs/hr = pound(s) per hour
Ci/L = Curie(s) per Liter
Ci/hr = Curie(s) per hour

[a] Data represent the average of 2022 source testing data from Elmore and Leathers. Analytes that were registered as non-detect were analyzed at 1/2 the detection limit. Based on the likelihood of compounds being volatized during the first pass through the Cooling Tower, data for volatile compounds were best represented by Cooling Tower Hotwell measurements, whereas non-volatile compounds (i.e., metals) were best represented by Cooling Tower Blowdown measurements.

[b] Emissions were estimated as follows:

Emission Rate for Non-Volatile Compounds:	ER (lbs/hr) = Recirculation Rate (gpm) * 60 min/hr * 3.785 liters/gal * HAP Concentration (µg/L) * 1 lb / 453.6 g * 1 g / 10^6 µg * Drift Fraction
Emission Rate for Volatile Compounds:	ER (lbs/hr) = Makeup Rate (gpm) * 60 min/hr * 3.785 liters/gal * HAP Concentration (µg/L) * 1 lb / 453.6 g * 1 g / 10^6 µg * Volatilization Fraction (assumed to be one)

[c] H_2S abatement efficiency of Oxidation Box is: 95%

[d] Ammonia emisions calculated based on an effective concentration, which was derived from a mass balance of ammonia detected in both the Hot Well and Blowdown streams (230 mg/L and 4,468 gpm and 1,500 mg/L at 528 gpm, respectively).

Table 2.15 Cooling Tower TAC Emissions During Normal Operation

BHE Renewables
Morton Bay Operational Emissions
Cooling Tower Oxidation Box Bypass TAC Emission Data
April 2023

Cooling Tower Recirculation Rate	230,000	gpm
Drift Eliminator Efficiency	0.00050%	
Cooling Tower Cylces of Concentration	8	
Cooling Tower Makeup Rate	4,224	gpm
Water Evaporated from Cooling Tower	3,695	gpm

Cooling Tower Oxidation Box Bypass TAC Emission Calculations

Constituents	Concentration Analyzed in Condensate [a]	Hourly Emissions [b, c, d]
Non-Volatile Compound Calculations		
Pollutant	**(µg/L)**	**(lbs/hr)**
Aluminum	50	2.88E-05
Antimony	7.5	4.32E-06
Arsenic	470.5	2.71E-04
Barium	240	1.38E-04
Beryllium	0.5	2.88E-07
Cobalt	0.5	2.88E-07
Cadmium	1.5	8.64E-07
Total Chromium	2.5	1.44E-06
Copper	24	1.38E-05
Vanadium	2.5	1.44E-06
Lead	35.5	2.04E-05
Lithium	50	2.88E-05
Manganese	2,300	1.32E-03
Mercury	26.8	1.54E-05
Nickel	6.1	3.51E-06
Selenium	79	4.55E-05
Total Silica	2,500	1.44E-03
Silver	2.5	1.44E-06
Strontium	50	2.88E-05
Zinc	1,425	8.20E-04
Volatile Compound Calculations		
Pollutant	**(µg/L)**	**(lbs/hr)**
Ammonia (mg/L)	55.8	1.18E+02
H_2S	N/A	5.43E+01
Benzene	0.25	5.3E-04
Ethylbenzene	0.25	5.3E-04
Toluene	0.25	5.3E-04
Xylenes (m+p+o)	0.5	1.1E-03
Radon Calculations		
Pollutant	**(Ci/L)**	**(Ci/hr)**
Radon	9.20E-13	8.82E-07

µg/L = microgram(s) per liter
mg/L = milligram(s) per liter
gpm = gallon(s) per minute
lb/hr = pound(s) per hour

Table 2.15 Cooling Tower TAC Emissions During Normal Operation

Ci/L = Curie(s) per liter

Ci/hr = Curie(s) per hour

[a] Data represent the average of 2022 source testing data from Elmore and Leathers. Analytes that were registered as non-detect were analyzed at 1/2 the detection limit. Based on the likelihood of compounds being volatized during the first pass through the Cooling Tower, data for volatile compounds were best represented by Cooling Tower Hotwell measurements, whereas non-volatile compounds (i.e., metals) were best represented by Cooling Tower Blowdown measurements.

[b] Emissions were estimated as follows:

Emission Rate for Non-Volatile Compounds:	ER (lbs/hr) = Recirculation Rate (gpm) * 60 min/hr * 3.785 liters/gal * HAP Concentration (µg/L) * 1 lb / 453.6 g * 1 g / 10^6 µg * Drift Fraction
Emission Rate for Volatile Compounds:	ER (lbs/hr) = Makeup Rate (gpm) * 60 min/hr * 3.785 liters/gal * HAP Concentration (µg/L) * 1 lb / 453.6 g * 1 g / 10^6 µg * Volatilization Fraction (assumed to be one)

[c] Oxbox bypass assumes 0% control of H_2S.

[d] Ammonia emisions calculated based on an effective concentration, which was derived from a mass balance of ammonia detected in both the Hot Well and Blowdown streams (230 mg/L and 4,468 gpm and 1,500 mg/L at 528 gpm, respectively).

Table 2.17 Emissions from Operation and Maintenance Equipment

BHE Renewables
Morton Bay Operational Emissions
O&M Emission Calculations
April 2023

O&M Equipment and Vehicle Emission Rates

O&M Equipment and Vehicle	Fuel	Equipment Type	Usage [a] (hr or mile/hr)	Emission Factors (lbs/hr or lb/mile)									Emission Rates (lbs/hr)								
				NO_X	CO	VOC	SO_2	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O	NO_X	CO	VOC	SO_2	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O
Water Truck	Diesel	Construction Equipment	1	3.89E-01	3.76E-01	5.78E-02	1.54E-03	1.40E-02	1.28E-02	1.66E+02	6.74E-03	1.35E-03	3.89E-01	3.76E-01	5.78E-02	1.54E-03	1.40E-02	1.28E-02	1.66E+02	6.74E-03	1.35E-03
Dump Truck	Diesel	Construction Equipment	1	3.89E-01	3.76E-01	5.78E-02	1.54E-03	1.40E-02	1.28E-02	1.66E+02	6.74E-03	1.35E-03	3.89E-01	3.76E-01	5.78E-02	1.54E-03	1.40E-02	1.28E-02	1.66E+02	6.74E-03	1.35E-03
On-Site Pickup Truck	Gasoline	Vehicle	20	4.70E-04	7.30E-03	1.20E-04	8.37E-06	4.02E-05	1.74E-05	8.27E-01	3.01E-05	2.03E-06	9.39E-03	1.46E-01	2.41E-03	1.67E-04	8.05E-04	3.49E-04	1.65E+01	6.02E-04	4.05E-05
Off-Site Pickup Trucks	Gasoline	Vehicle	50	4.70E-04	7.30E-03	1.20E-04	8.37E-06	4.02E-05	1.74E-05	8.27E-01	3.01E-05	2.03E-06	2.35E-02	3.65E-01	6.02E-03	4.19E-04	2.01E-03	8.72E-04	4.13E+01	1.50E-03	1.01E-04
Off-Site Haul Truck	Diesel	Vehicle	50	2.67E-03	2.03E-04	2.18E-05	2.95E-05	2.25E-04	9.23E-05	3.10E+00	1.01E-06	6.78E-06	1.34E-01	1.02E-02	1.09E-03	1.48E-03	1.12E-02	4.61E-03	1.55E+02	5.07E-05	3.39E-04
Forklift	Diesel	Construction Equipment	1	1.52E-01	2.73E-01	1.06E-02	4.13E-04	3.65E-03	3.36E-03	4.47E+01	1.81E-03	3.63E-04	1.52E-01	2.73E-01	1.06E-02	4.13E-04	3.65E-03	3.36E-03	4.47E+01	1.81E-03	3.63E-04
Boom Truck	Diesel	Construction Equipment	1	3.89E-01	3.76E-01	5.78E-02	1.54E-03	1.40E-02	1.28E-02	1.66E+02	6.74E-03	1.35E-03	3.89E-01	3.76E-01	5.78E-02	1.54E-03	1.40E-02	1.28E-02	1.66E+02	6.74E-03	1.35E-03
Crane-50T	Diesel	Construction Equipment	1	5.00E-01	3.94E-01	4.93E-02	1.14E-03	2.01E-02	1.85E-02	1.24E+02	5.02E-03	1.00E-03	5.00E-01	3.94E-01	4.93E-02	1.14E-03	2.01E-02	1.85E-02	1.24E+02	5.02E-03	1.00E-03
Excavator	Diesel	Construction Equipment	1	1.06E-01	1.27E-01	1.25E-02	1.63E-04	3.59E-03	3.31E-03	1.77E+01	7.19E-04	1.44E-04	1.06E-01	1.27E-01	1.25E-02	1.63E-04	3.59E-03	3.31E-03	1.77E+01	7.19E-04	1.44E-04
Backhoe	Diesel	Construction Equipment	1	1.50E-01	2.39E-01	1.47E-02	3.35E-04	6.66E-03	6.12E-03	3.63E+01	1.47E-03	2.95E-04	1.50E-01	2.39E-01	1.47E-02	3.35E-04	6.66E-03	6.12E-03	3.63E+01	1.47E-03	2.95E-04
Yardogs	Diesel	Construction Equipment	1	3.89E-01	3.76E-01	5.78E-02	1.54E-03	1.40E-02	1.28E-02	1.66E+02	6.74E-03	1.35E-03	3.89E-01	3.76E-01	5.78E-02	1.54E-03	1.40E-02	1.28E-02	1.66E+02	6.74E-03	1.35E-03
Pressure Washers	Diesel	Construction Equipment	1	4.09E-02	3.03E-02	4.94E-03	7.94E-05	1.71E-03	1.57E-03	5.36E+00	2.17E-04	4.35E-05	4.09E-02	3.03E-02	4.94E-03	7.94E-05	1.71E-03	1.57E-03	5.36E+00	2.17E-04	4.35E-05
Welders	Diesel	Construction Equipment	1	1.73E-01	2.08E-01	2.44E-02	3.35E-04	5.97E-03	5.49E-03	2.59E+01	1.05E-03	2.10E-04	1.73E-01	2.08E-01	2.44E-02	3.35E-04	5.97E-03	5.49E-03	2.59E+01	1.05E-03	2.10E-04
Manlift	Diesel	Construction Equipment	1	9.07E-02	9.78E-02	4.98E-03	1.70E-04	6.81E-04	6.26E-04	1.85E+01	7.48E-04	1.50E-04	9.07E-02	9.78E-02	4.98E-03	1.70E-04	6.81E-04	6.26E-04	1.85E+01	7.48E-04	1.50E-04
Air Compressors	Diesel	Construction Equipment	2	1.51E-01	1.91E-01	2.27E-02	2.88E-04	5.31E-03	4.89E-03	2.23E+01	9.03E-04	1.81E-04	3.03E-01	3.82E-01	4.55E-02	5.75E-04	1.06E-02	9.77E-03	4.45E+01	1.81E-03	3.61E-04
Carry Deck	Diesel	Construction Equipment	1	5.00E-01	3.94E-01	4.93E-02	1.14E-03	2.01E-02	1.85E-02	1.24E+02	5.02E-03	1.00E-03	5.00E-01	3.94E-01	4.93E-02	1.14E-03	2.01E-02	1.85E-02	1.24E+02	5.02E-03	1.00E-03

lbs/hr = pound(s) per hour
lb/mile = pound(s) per mile
mile/hr = mile(s) per hour
[a] Assumes two air compressors.

Table 2.17 Emissions from Operation and Maintenance Equipment

O&M Equipment and Vehicle Emissions

O&M Equipment and Vehicle	Fuel	Equipment Type	Usage [b]	Emission Rates (lbs/day) [a]									Emission Rates (tpy)							
			(hr/year)	NO_X	CO	VOC	SO_2	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O	NO_X	CO	VOC	SO_2	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O
Water Truck	Diesel	Construction Equipment	200	3.11E+00	3.01E+00	4.62E-01	1.23E-02	1.12E-01	1.03E-01	1.33E+03	5.39E-02	1.08E-02	3.89E-02	3.76E-02	5.78E-03	1.54E-04	1.40E-03	1.28E-03	1.66E+01	6.74E-04	1.35E-04
Dump Truck	Diesel	Construction Equipment	200	3.11E+00	3.01E+00	4.62E-01	1.23E-02	1.12E-01	1.03E-01	1.33E+03	5.39E-02	1.08E-02	3.89E-02	3.76E-02	5.78E-03	1.54E-04	1.40E-03	1.28E-03	1.66E+01	6.74E-04	1.35E-04
On-Site Pickup Truck	Gasoline	Vehicle	2,000	7.51E-02	1.17E+00	1.93E-02	1.34E-03	6.44E-03	2.79E-03	1.32E+02	4.82E-03	3.24E-04	9.39E-03	1.46E-01	2.41E-03	1.67E-04	8.05E-04	3.49E-04	1.65E+01	6.02E-04	4.05E-05
Off-Site Pickup Trucks	Gasoline	Vehicle	2,000	1.88E-01	2.92E+00	4.81E-02	3.35E-03	1.61E-02	6.98E-03	3.31E+02	1.20E-02	8.11E-04	2.35E-02	3.65E-01	6.02E-03	4.19E-04	2.01E-03	8.72E-04	4.13E+01	1.50E-03	1.01E-04
Off-Site Haul Truck	Diesel	Vehicle	400	1.07E+00	8.13E-02	8.74E-03	1.18E-02	9.00E-02	3.69E-02	1.24E+03	4.06E-04	2.71E-03	2.67E-02	2.03E-03	2.18E-04	2.95E-04	2.25E-03	9.23E-04	3.10E+01	1.01E-05	6.78E-05
Forklift	Diesel	Construction Equipment	200	1.21E+00	2.18E+00	8.47E-02	3.31E-03	2.92E-02	2.69E-02	3.58E+02	1.45E-02	2.90E-03	1.52E-02	2.73E-02	1.06E-03	4.13E-05	3.65E-04	3.36E-04	4.47E+00	1.81E-04	3.63E-05
Boom Truck	Diesel	Construction Equipment	450	3.11E+00	3.01E+00	4.62E-01	1.23E-02	1.12E-01	1.03E-01	1.33E+03	5.39E-02	1.08E-02	8.76E-02	8.47E-02	1.30E-02	3.45E-04	3.14E-03	2.89E-03	3.74E+01	1.52E-03	3.03E-04
Crane-50T	Diesel	Construction Equipment	384	4.00E+00	3.15E+00	3.95E-01	9.15E-03	1.61E-01	1.48E-01	9.90E+02	4.02E-02	8.03E-03	9.60E-02	7.57E-02	9.47E-03	2.19E-04	3.86E-03	3.55E-03	2.38E+01	9.64E-04	1.93E-04
Excavator	Diesel	Construction Equipment	260	8.45E-01	1.01E+00	1.00E-01	1.31E-03	2.87E-02	2.64E-02	1.42E+02	5.75E-03	1.15E-03	1.37E-02	1.65E-02	1.63E-03	2.12E-05	4.67E-04	4.30E-04	2.30E+00	9.34E-05	1.87E-05
Backhoe	Diesel	Construction Equipment	260	1.20E+00	1.92E+00	1.18E-01	2.68E-03	5.33E-02	4.90E-02	2.90E+02	1.18E-02	2.36E-03	1.95E-02	3.11E-02	1.92E-03	4.36E-05	8.65E-04	7.96E-04	4.72E+00	1.91E-04	3.83E-05
Yardogs	Diesel	Construction Equipment	260	3.11E+00	3.01E+00	4.62E-01	1.23E-02	1.12E-01	1.03E-01	1.33E+03	5.39E-02	1.08E-02	5.06E-02	4.89E-02	7.51E-03	2.00E-04	1.81E-03	1.67E-03	2.16E+01	8.77E-04	1.75E-04
Pressure Washers	Diesel	Construction Equipment	450	3.27E-01	2.43E-01	3.95E-02	6.36E-04	1.36E-02	1.26E-02	4.28E+01	1.74E-03	3.48E-04	9.20E-03	6.82E-03	1.11E-03	1.79E-05	3.84E-04	3.53E-04	1.21E+00	4.89E-05	9.78E-06
Welders	Diesel	Construction Equipment	450	1.38E+00	1.66E+00	1.95E-01	2.68E-03	4.77E-02	4.39E-02	2.07E+02	8.42E-03	1.68E-03	3.88E-02	4.68E-02	5.48E-03	7.54E-05	1.34E-03	1.24E-03	5.84E+00	2.37E-04	4.73E-05
Manlift	Diesel	Construction Equipment	384	7.26E-01	7.82E-01	3.99E-02	1.36E-03	5.44E-03	5.01E-03	1.48E+02	5.99E-03	1.20E-03	1.74E-02	1.88E-02	9.57E-04	3.27E-05	1.31E-04	1.20E-04	3.54E+00	1.44E-04	2.87E-05
Air Compressors	Diesel	Construction Equipment	800	2.42E+00	3.06E+00	3.64E-01	4.60E-03	8.50E-02	7.82E-02	3.56E+02	1.44E-02	2.89E-03	1.21E-01	1.53E-01	1.82E-02	2.30E-04	4.25E-03	3.91E-03	1.78E+01	7.22E-04	1.44E-04
Carry Deck	Diesel	Construction Equipment	200	4.00E+00	3.15E+00	3.95E-01	9.15E-03	1.61E-01	1.48E-01	9.90E+02	4.02E-02	8.03E-03	5.00E-02	3.94E-02	4.93E-03	1.14E-04	2.01E-03	1.85E-03	1.24E+01	5.02E-04	1.00E-04

hr/year = hour(s) per year

lbs/day = pound(s) per day

tpy = ton(s) per year

[a] Equipment and vehicle operations assume 8 hours per day

[b] Each of the site's two (2) air compressors are assumed to operate 800 hours per year.

BHE Renewables

Morton Bay Operational Emissions
Fire Pump Emission Data
April 2023

Engine Information	Value
Engine Rating (kW)	236
Annual Hours of Operations (hrs/yr)	50
Fuel Use (gal/hr)	6
Heat Input (MMBtu/hr) [a]	0.8

kW = kilowatt
hrs/yr = hour(s) per year
gal/hr = gallon(s) per hour
MMBtu/hr = million British thermal unit(s) per hour
[a] Heat input for Fire Pump calculated based upon 1 horsepower = 2,544 Btu/hr.

Criteria Pollutant Emissions

Pollutant	Emission Factor (g/kW-hr)	Basis	1-Hour Emission Rate (lbs/hr)	Annual Emissons (tpy)	Annual Average Hourly Emissions (lbs/hr)
NO_X Emissions	3.4	Vendor Data	1.78E+00	4.46E-02	1.02E-02
CO Emissions	0.8	Vendor Data	4.16E-01	1.04E-02	2.38E-03
PM_{10} Emissions	0.11	Vendor Data	5.72E-02	1.43E-03	3.27E-04
$PM_{2.5}$ Emissions	0.11	Vendor Data	5.72E-02	1.43E-03	3.27E-04
SO_x Emissions	0.00001	Calculated based upon 15 ppm USLD	2.70E-06	6.76E-08	1.54E-08
VOC Emissions	0.09	Vendor Data	4.68E-02	1.17E-03	2.67E-04

g/kW-hr = gram(s) per kilowatt-hour
lbs/hr = pound(s) per hour
ppm = part(s) per million
tpy = ton(s) per year
USLD = Ultra low sulfur diesel

Toxic Emissions

Pollutant	Emission Factor (lb/MMBTU) [a]	Fire Pump Emissions (lbs/yr)	Fire Pump Emissions (tpy)
Benzene	9.33E-04	3.73E-02	1.87E-05
Toluene	4.09E-04	1.64E-02	8.18E-06
Xylenes	2.85E-04	1.14E-02	5.70E-06
Formaldehyde	1.18E-03	4.72E-02	2.36E-05
1,3-Butadiene	3.91E-05	1.56E-03	7.82E-07
Acetaldehyde	7.67E-04	3.07E-02	1.53E-05
Acrolein	9.25E-05	3.70E-03	1.85E-06
Naphthalene	8.48E-05	3.39E-03	1.70E-06
Propylene	2.58E-03	1.03E-01	5.16E-05
Acenaphthylene	5.06E-06	2.02E-04	1.01E-07
Acenaphthene	1.42E-06	5.68E-05	2.84E-08
Fluorene	2.92E-05	1.17E-03	5.84E-07
Phenanthrene	2.94E-05	1.18E-03	5.88E-07
Anthracene	1.87E-06	7.48E-05	3.74E-08
Fluoranthene	7.61E-06	3.04E-04	1.52E-07
Pyrene	4.78E-06	1.91E-04	9.56E-08
Benz(a)anthracene	1.68E-06	6.72E-05	3.36E-08
Chrysene	3.53E-07	1.41E-05	7.06E-09
Benzo(b)fluoranthene	9.91E-08	3.96E-06	1.98E-09
Benzo(k)fluoranthene	1.55E-07	6.20E-06	3.10E-09
Benzo(a)pyrene	1.88E-07	7.52E-06	3.76E-09
Indeno(1,2,3-cd)pyrene	3.75E-07	1.50E-05	7.50E-09
Dibenz(a,h)anthracene	5.83E-07	2.33E-05	1.17E-08
Benzo(g,h,I)perylene	4.89E-07	1.96E-05	9.78E-09

lb/MMBtu = pound(s) per million British thermal unit

lbs/yr = pound(s) per year

tpy = ton(s) per year

[a] Toxic Emission Factors from EPA's *AP-42*, Section 3.3, Table 3.3-2 (EPA 1996).

Stack Parameters	Value	Units
Stack Diameter	0.50	feet
Stack Diameter	0.15	meters
Stack Height	10.92	feet
Stack Height	3.33	meters
Stack Flow	1400	cubic feet per minute
Stack Flow	39.66	cubic meters per minute
Exit Velocity	36.23	meters per second
Stack Temperature	961	degrees Fahrenheit (°F)
Stack Temperature	789.26	degrees Kelvin (K)

GHG Emissions

Source Name	CO_2 Emissions (tpy)	CH_4 Emissions (tpy)	N_2O Emissions (tpy)	CO_2e Emissions (tpy)
Fire Pump	3.26	1.32E-04	2.65E-05	3.27

tpy = ton(s) per year

Diesel Fuel GHG Emission Factors and Conversions			Source
CO_2	73.96	kg/MMBtu	40 CFR 98.33, Table C-1
CH_4	3.00E-03	kg/MMBtu	40 CFR 98.33, Table C-2
N_2O	6.00E-04	kg/MMBtu	40 CFR 98.33, Table C-2
Default HHV	0.1380	MMBtu/gal	40 CFR 98.33, Table C-1
Density of Distillate #2	7.05	lbs/gallon	AP-42, Appendix A
Conversion	1.1023	ton/tonne	--
Conversion	0.0010	tonne/kg	--

HHV = Higher Heating Value

kg/MMBtu = kilogram(s) per million British thermal unit

MMBtu/gal = million British thermal unit(s) per gallon

lbs = pound(s)

kg = kilogram(s)

Global Warming Potentials (GWP)		Source
GWP CO_2 =	1	40 CFR 98 Subpart A, Table A-1
GWP CH_4 =	25	40 CFR 98 Subpart A, Table A-1
GWP N_2O =	298	40 CFR 98 Subpart A, Table A-1

BHE Renewables
Morton Bay Operational Emissions
Generator 1 Emission Data
April 2023

Engine Information	Value
Engine Rating (kW)	2,700
Engine Rating (HP)	3,621
Annual Hours of Operations (hrs/yr)	50
Fuel Use (gal/hr)	175
Heat Input (MMBtu/hr)	24.1

kW = kilowatt(s)
HP = horsepower
hrs/yr = hour(s) per year
gal/hr = gallon(s) per hour
MMBtu/hr = million British thermal unit(s) per hour

Criteria Pollutant Emissions

Pollutant	Emission Factor (g/kW-hr)	Basis	1-Hour Emission Rate (lbs/hr)	Annual Emissons (tpy)	Annual Average Hourly Emissions (lbs/hr)
NO_X Emissions	0.67	Applicant Provided Data	4.0	0.10	0.023
CO Emissions	3.5	Applicant Provided Data	20.8	0.52	0.12
PM_{10} Emissions	0.03	Applicant Provided Data	0.18	0.00	0.001
$PM_{2.5}$ Emissions	0.03	Applicant Provided Data	0.18	0.00	0.001
SO_x Emissions	0.00001	Calculated based upon 15 ppm ULSD	8.14E-05	2.04E-06	4.65E-07
VOC Emissions	0.19	Applicant Provided Data	1.13	0.03	0.006

g/kW-hr = gram(s) per kilowatt-hour
lbs/hr = pound(s) per hour
ppm = part(s) per million
tpy = ton(s) per year
USLD = Ultra low sulfur diesel

Toxic Emissions

Pollutant	Emission Factor (lb/MMBTU) [a]	Controlled Generator Emissions (lbs/yr) [b]	Controlled Generator Emissions (tpy)
Benzene	7.76E-04	1.87E-01	9.35E-05
Toluene	2.81E-04	6.77E-02	3.39E-05
Xylenes	1.93E-04	4.65E-02	2.33E-05
Formaldehyde	7.89E-05	1.90E-02	9.51E-06
Acetaldehyde	2.52E-05	6.07E-03	3.04E-06
Acrolein	7.88E-06	1.90E-03	9.49E-07
Naphthalene	1.30E-04	3.13E-02	1.57E-05
Propylene	2.79E-03	6.72E-01	3.36E-04
Ammonia	5 ppm slip [c]	1.39E+01	6.93E-03
Acenaphthylene	9.23E-06	2.22E-03	1.11E-06
Acenaphthene	4.68E-06	1.13E-03	5.64E-07
Fluorene	1.28E-05	3.08E-03	1.54E-06
Phenanthrene	4.08E-05	9.83E-03	4.92E-06
Anthracene	1.23E-06	2.96E-04	1.48E-07
Fluoranthene	4.03E-06	9.71E-04	4.86E-07
Pyrene	3.71E-06	8.94E-04	4.47E-07
Benz(a)anthracene	6.22E-07	1.50E-04	7.49E-08
Chrysene	1.53E-06	3.69E-04	1.84E-07
Benzo(b)fluoranthene	1.11E-06	2.67E-04	1.34E-07
Benzo(k)fluoranthene	2.18E-07	5.25E-05	2.63E-08
Benzo(a)pyrene	2.57E-07	6.19E-05	3.10E-08
Indeno(1,2,3-cd)pyrene	4.14E-07	9.98E-05	4.99E-08
Dibenz(a,h)anthracene	3.46E-07	8.34E-05	4.17E-08
Benzo(g,h,I)perylene	5.56E-07	1.34E-04	6.70E-08

lb/MMBtu = pound(s) per million British thermal unit

lbs/yr = pound(s) per year

tpy = ton(s) per year

[a] Toxic Emission Factors from EPA's *AP-42*, Section 3.4, Tables 3.4-3 and 3.4-4 (EPA 1996).

[b] Control efficiencies use industry standard of 80% control of VOCs for Tier 4 engines.

[c] 5 ppm ammonia slip typical estimate for Selective Catalytic Reduction (SCR) systems.

Stack Parameters	Value	Units
Stack Diameter	1.17	feet
Stack Diameter	0.36	meters
Stack Height	23.39	feet
Stack Height	7.13	meters
Stack Flow	19459	cubic feet per minute
Stack Flow	551.21	cubic meters per minute
Exit Velocity	92.50	meters per second
Stack Temperature	914	°F
Stack Temperature	763.15	K

GHG Emissions

Source Name	CO_2 Emissions (tpy)	CH_4 Emissions (tpy)	N_2O Emissions (tpy)	CO_2e Emissions (tpy)
Generator 1	98.22	0.004	0.001	98.55

tpy = ton(s) per year

Diesel Fuel GHG Emission Factors and Conversions			Source
CO_2	73.96	kg/MMBtu	40 CFR 98.33, Table C-1
CH_4	3.00E-03	kg/MMBtu	40 CFR 98.33, Table C-2
N_2O	6.00E-04	kg/MMBtu	40 CFR 98.33, Table C-2
Default HHV	0.1380	MMBtu/gal	40 CFR 98.33, Table C-1
Density of Distillate #2	7.05	lbs/gallon	AP-42, Appendix A
Conversion	1.1023	ton/tonne	--
	0.0010	tonne/kg	--
	28.3168	L/ft^3	--
Molar Volume of Air at STP	22.4	L/mol	--

HHV = Higher Heating Value

kg/MMBtu = kilogram(s) per million British thermal unit

MMBtu/gal = million British thermal unit(s) per gallon

lbs = pound(s)

kg = kilogram(s)

L/ft^3 = liter(s) per cubic foot

L = liter(s)

Global Warming Potentials		Source
GWP CO_2 =	1	40 CFR 98 Subpart A, Table A-1
GWP CH_4 =	25	40 CFR 98 Subpart A, Table A-1
GWP N_2O =	298	40 CFR 98 Subpart A, Table A-1

BHE Renewables
Morton Bay Operational Emissions
Generator 2-5 Emission Data
April 2023

Engine Information	Value
Engine Rating (kW)	3,490
Engine Rating (HP)	4,680
Annual Hours of Operations (hrs/yr)	50
Fuel Use (gal/hr)	219
Heat Input (MMBtu/hr)	30.2
Generator Count	4

kW = kilowatt
HP = horsepower
hrs/yr = hour(s) per year
gal/hr = gallon(s) per hour
MMBtu/hr = million British thermal unit(s) per hour

Criteria Pollutant Emissions Per Generator

Pollutant	Emission Factor (g/kW-hr)	Basis	1-Hour Emission Rate (lbs/hr)	Annual Emissons (tpy)	Annual Average Hourly Emissions (lbs/hr)
NO_X Emissions	0.67	Applicant Provided Data	5.2	0.13	0.029
CO Emissions	3.5	Applicant Provided Data	26.9	0.67	0.15
PM_{10} Emissions	0.03	Applicant Provided Data	0.23	0.01	0.001
$PM_{2.5}$ Emissions	0.03	Applicant Provided Data	0.23	0.01	0.001
SO_x Emissions	0.000002	Calculated based upon 15 ppm ULSD	1.41E-05	3.53E-07	8.05E-08
VOC Emissions	0.19	Applicant Provided Data	1.46	0.04	0.008

g/kW-hr = gram(s) per kilowatt-hour
lbs/hr = pound(s) per hour
ppm = part(s) per million
tpy = ton(s) per year
USLD = Ultra low sulfur diesel

Toxic Emissions Per Generator

Pollutant	Emission Factor (lb/MMBTU) [a]	Controlled Generator Emissions (lbs/yr) [b]	Controlled Generator Emissions (tpy)
Benzene	7.76E-04	2.35E-01	1.17E-04
Toluene	2.81E-04	8.50E-02	4.25E-05
Xylenes	1.93E-04	5.84E-02	2.92E-05
Formaldehyde	7.89E-05	2.39E-02	1.19E-05
Acetaldehyde	2.52E-05	7.62E-03	3.81E-06
Acrolein	7.88E-06	2.38E-03	1.19E-06
Naphthalene	1.30E-04	3.93E-02	1.97E-05
Propylene	2.79E-03	8.44E-01	4.22E-04
Ammonia	5 ppm slip [c]	1.69E+01	8.44E-03
Acenaphthylene	9.23E-06	2.79E-03	1.40E-06
Acenaphthene	4.68E-06	1.42E-03	7.08E-07
Fluorene	1.28E-05	3.87E-03	1.94E-06
Phenanthrene	4.08E-05	1.23E-02	6.17E-06
Anthracene	1.23E-06	3.72E-04	1.86E-07
Fluoranthene	4.03E-06	1.22E-03	6.10E-07
Pyrene	3.71E-06	1.12E-03	5.61E-07
Benz(a)anthracene	6.22E-07	1.88E-04	9.41E-08
Chrysene	1.53E-06	4.63E-04	2.31E-07
Benzo(b)fluoranthene	1.11E-06	3.36E-04	1.68E-07
Benzo(k)fluoranthene	2.18E-07	6.59E-05	3.30E-08
Benzo(a)pyrene	2.57E-07	7.77E-05	3.89E-08
Indeno(1,2,3-cd)pyrene	4.14E-07	1.25E-04	6.26E-08
Dibenz(a,h)anthracene	3.46E-07	1.05E-04	5.23E-08
Benzo(g,h,I)perylene	5.56E-07	1.68E-04	8.41E-08

lb/MMBtu = pound(s) per million British thermal unit

lbs/yr = pound(s) per year

tpy = ton(s) per year

[a] Toxic Emission Factors from EPA's *AP-42*, Section 3.4, Tables 3.4-3 and 3.4-4 (EPA 1996)

[b] Control efficiencies use industry standard of 80% control of VOCs for Tier 4 engines.

[c] 5 ppm ammonia slip typical estimate for SCR systems.

Stack Parameters	Value	Units
Stack Diameter	1.17	feet
Stack Diameter	0.36	meters
Stack Height	23.54	feet
Stack Height	7.17	meters
Stack Flow	23,696	cubic feet per minute
Stack Flow	671.23	cubic meters per minute
Exit Velocity	112.64	meters per second
Stack Temperature	887	°F
Stack Temperature	748.15	K

GHG Emissions Per Generator

Source Name	CO_2 Emissions (tpy)	CH_4 Emissions (tpy)	N_2O Emissions (tpy)	CO_2e Emissions (tpy)
Generator 2-4	123.31	0.005	0.001	123.73

tpy = ton(s) per year

Diesel Fuel GHG Emission Factors and Conversions			Source
CO_2	73.96	kg/MMBtu	40 CFR 98.33, Table C-1
CH_4	3.00E-03	kg/MMBtu	40 CFR 98.33, Table C-2
N_2O	6.00E-04	kg/MMBtu	40 CFR 98.33, Table C-2
Default HHV	0.1380	MMBtu/gal	40 CFR 98.33, Table C-1
Density of Distillate #2	7.05	lbs/gallon	AP-42, Appendix A
Conversion	1.1023	ton/tonne	--
	0.0010	tonne/kg	--
	28.3168	L/ft^3	--
Molar Volume of Air at STP	22.4	L/mol	--

HHV = Higher Heating Value

kg/MMBtu = kilogram(s) per million British thermal unit

MMBtu/gal = million British thermal unit(s) per gallon

lbs = pound(s)

kg = kilogram(s)

L/ft^3 = liter(s) per cubic foot

L = liter(s)

Global Warming Potentials		Source
GWP CO_2 =	1	40 CFR 98 Subpart A, Table A-1
GWP CH_4 =	25	40 CFR 98 Subpart A, Table A-1
GWP N_2O =	298	40 CFR 98 Subpart A, Table A-1

BHE Renewables Morton Bay Operational Emissions Insulating Gas Emissions
April 2023

Engine Information	Value
Insulating Gas Used in Equipment	Sulfur Hexafluoride
Mass of Insulating Gas Used (lbs)	300
Gas Global Warming Potential [a]	22,800
CO_2e System Capacity (Metric Tons) [b]	3,054
Assumed Annual Emissions (Metric Tons/Year)	61.07

lbs = pound(s)

[a] Global Warming Potential from 40 CFR Part 98, Table A-1

[b] Estimated leak rate based upon Califonia Regulation for Reducing Greenhouse Gas Emissions from Gas-Insulated Equipment (17 CCR 95353, Tables 4 and 5) for data years through 2034.

BHE Renewables

Morton Bay Operational Emissions
O&M Equipment Emission Factors
April 2023

O&M Equipment Emission Factor Data

Equipment Type	Fuel	Horsepower [a]	Load Factor [a]	CalEEMOD Equipment Category	Equipment Exhaust Emission Factors (g/hp-hr) [b,c]								
					CO	VOC	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O
Crane-50T	Diesel	367	0.29	Cranes	1.68E+00	2.10E-01	2.13E+00	4.87E-03	8.57E-02	7.89E-02	5.28E+02	2.14E-02	4.28E-03
Water Truck	Diesel	376	0.38	Off-Highway Trucks	1.19E+00	1.83E-01	1.24E+00	4.87E-03	4.43E-02	4.08E-02	5.28E+02	2.14E-02	4.28E-03
Dump Truck	Diesel	376	0.38	Off-Highway Trucks	1.19E+00	1.83E-01	1.24E+00	4.87E-03	4.43E-02	4.08E-02	5.28E+02	2.14E-02	4.28E-03
Excavator	Diesel	36	0.38	Excavators	4.20E+00	4.15E-01	3.50E+00	5.42E-03	1.19E-01	1.10E-01	5.87E+02	2.38E-02	4.76E-03
Backhoe	Diesel	84	0.37	Tractors/Loaders /Backhoes	3.49E+00	2.15E-01	2.19E+00	4.89E-03	9.72E-02	8.94E-02	5.30E+02	2.15E-02	4.30E-03
Yardogs	Diesel	376	0.38	Off-Highway Trucks	1.19E+00	1.83E-01	1.24E+00	4.87E-03	4.43E-02	4.08E-02	5.28E+02	2.14E-02	4.28E-03
Pressure washers	Diesel	14	0.3	Pressure Washers	3.28E+00	5.34E-01	4.41E+00	8.58E-03	1.84E-01	1.69E-01	5.78E+02	2.35E-02	4.69E-03
Welders	Diesel	46	0.45	Welders	4.56E+00	5.34E-01	3.78E+00	7.35E-03	1.31E-01	1.20E-01	5.68E+02	2.31E-02	4.61E-03
Forklift	Diesel	96	0.4	Rough Terrain Forklifts	3.22E+00	1.25E-01	1.79E+00	4.88E-03	4.31E-02	3.97E-02	5.29E+02	2.14E-02	4.29E-03
Boom Truck	Diesel	376	0.38	Off-Highway Trucks	1.19E+00	1.83E-01	1.24E+00	4.87E-03	4.43E-02	4.08E-02	5.28E+02	2.14E-02	4.28E-03
Carry Deck	Diesel	367	0.29	Cranes	1.68E+00	2.10E-01	2.13E+00	4.87E-03	8.57E-02	7.89E-02	5.28E+02	2.14E-02	4.28E-03
Air Compressors	Diesel	37	0.48	Air Compressors	4.88E+00	5.81E-01	3.86E+00	7.35E-03	1.36E-01	1.25E-01	5.68E+02	2.31E-02	4.61E-03
Manlift	Diesel	46	0.31	Aerial Lifts	3.11E+00	1.58E-01	2.89E+00	5.42E-03	2.16E-02	1.99E-02	5.87E+02	2.38E-02	4.76E-03

g/hp-hr = gram(s) per horsepower hour

[a] Construction equipment horsepower and load factor taken from Table G-12 of Appendix G of the *CalEEMod User's Guide* (ICF 2022).

[b] Construction equipment emission factors taken from Table G-11 of Appendix G of the *CalEEMod User's Guide* (ICF 2022).

[c] Based on the preliminary construction schedule, construction is expected to begin in 2024. Despite operations occuring later than construction, 2024 emission factors were used for all calculations to provide a more conservative emissions estimate.

BHE Renewables

Morton Bay Operational Emissions
O&M Vehicle Emission Factors
April 2023

Vehicle Exhaust Emission Factors

Vehicle Type	Location of Vehicle Operation [a]	Vehicle Class [b]	2024 Exhaust Emission Factors (g/mile) [c, d]									Paved Road Fugitive Dust Emission Factors (g/mile) [e]		Unpaved Road Fugitive Dust Emission Factors (g/mile) [e]	
			CO	VOC	SO2	NO_X	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O	PM_{10}	$PM_{2.5}$	PM_{10}	$PM_{2.5}$
Pickup Truck	Onsite, Offsite	Light-duty truck	3.313	0.055	0.004	0.213	0.018	0.008	375.110	0.014	0.001	0.299	0.075	658.809	65.743
Haul Trucks	Offsite	Heavy-duty Diesel	0.092	0.010	0.013	1.213	0.102	0.042	1,404.258	0.000	0.003	0.299	0.075	N/A	N/A

g/mile = gram(s) per mile

[a] Offsite vehicle emissions occur as a result of roadway travel.

[b] The vehicle classes are represented as follows:

Light-duty Truck: Assumed to be 50% LDT1 Gas and 50% LDT2 Gas values, based on an understanding of the vehicle type.

Heavy-duty Diesel: Assumed to be 100% HHDT DSL values, per Section 4.6.4 of Appendix C of the *CalEEMod User's Guide* (ICF 2022).

[c] Exhaust and idling emission factors from EMFAC2021 for Imperial County, calendar year 2024. A speed of 40 mph was assumed for all vehicles. An average temperature of 78°F and humidity of 40% were used per Table B-1 of *CT-EMFAC: A Computer Model to Estimate Transportation Project Emissions* (UC Davis 2007).

[d] Although operation will occur after 2026, 2024 emission factors and fuel economy were used, as appropriate, to provide a more conservative emissions estimate.

[e] Paved and unpaved road emission factors calculated using CalEEMod methodology, as described below assuming no emission controls. The unpaved road fugitive dust emission factors only apply to onsite vehicle travel on unpaved roads.

Derivation of Paved Road Emission Factors

Vehicles on Paved Roads

Parameter	PM_{10}	$PM_{2.5}$
Average Weight [a]	2.4	2.4
k [a]	1.0	0.25
sL [a]	0.1	0.1
P [b]	5.0	5.0
Emission Factor (g/mile) [c]	0.299	0.075

g/mile = gram(s) per mile

[a] Average Weight, k, and sL taken as the CalEEMod statewide defaults from Section 5.1.4 of Appendix C of the *CalEEMod User's Guide* (ICF 2022).

[b] P taken as the CalEEMod default value for the Imperial County Airport from Table G-2 of Appendix G of the *CalEEMod User's Guide* (ICF 2022).

[c] Emission factor calculated using the following equation from Section 5.1.4 of Appendix C of the CalEEMod User's Guide (ICF 2022):

Emission Factor (g/mile) = k (g/mile) x $[sL\ (g/m^2)]^{0.91}$ x [Average Weight (tons)]$^{1.02}$ x (1 - P (days) / [4 x 365 days])

Fugitive Dust Emission Factors for Unpaved Roads

Vehicles on Unpaved Surfaces at Industrial Sites

Parameter	PM_{10}	$PM_{2.5}$
k [a]	1.80	0.18
s [a]	8.5	8.5
M [a]	0.5	0.5
S [a]	40	40
C [b]	0.00047	0.00036
P [c]	5	5
Emission Factor (lb/mile) [d]	1.452	0.145

lb/mile = pound(s) per mile

[a] k, s, M, and S are taken as the CalEEMod default values from Section 5.1.4 of Appendix C of the *CalEEMod User's Guide* (ICF 2022); k was converted from g to lbs.

[b] C taken as the default values from Table 13.2.2-4 of *AP-42* (EPA 2006), per Section 5.1.4 of Appendix C of the *CalEEMod User's Guide* (ICF 2022).

[c] P taken as the CalEEMod default value for the Imperial County Airport from Table G-2 of Appendix G of the *CalEEMod User's Guide* (ICF 2022).

[d] Emission factor calculated using the following equation from Section 5.1.4 of Appendix C of the *CalEEMod User's Guide* (ICF 2022):

Emission Factor (lb/mile) = ({[k (lb/mile) x (s (%) / 12) x (S (mph) / 30)$^{0.5}$] / [M (%) / 0.5]$^{0.2}$} - C (lb/mile)) x (1 - P (days) / 365 days)

Appendix 5.1B
Operational Air Quality Impacts Analysis

BHE Renewables

Morton Bay Operational Air Quality Impacts Analysis

Source Parameters

April 2023

BHER Morton Bay Operational Modeled Source Parameters

Source ID	Source Type	Stack Release Type	Source Description	Easting (X) (m)	Northing (Y) (m)	Base Elevation (m)	Stack Height (m)	Temperature (K)	Exit Velocity (m/s)	Stack Diameter (m)
CT1	POINT	DEFAULT	Cooling Tower 1	632,019.80	3,674,748.97	-68.58	12.98	311.76	7.91	10.63
CT2	POINT	DEFAULT	Cooling Tower 2	632,030.79	3,674,738.16	-68.58	12.98	311.76	7.91	10.63
CT3	POINT	DEFAULT	Cooling Tower 3	632,041.64	3,674,727.51	-68.58	12.98	311.76	7.91	10.63
CT4	POINT	DEFAULT	Cooling Tower 4	632,052.48	3,674,716.86	-68.58	12.98	311.76	7.91	10.63
CT5	POINT	DEFAULT	Cooling Tower 5	632,063.63	3,674,706.66	-68.58	12.98	311.76	7.91	10.63
CT6	POINT	DEFAULT	Cooling Tower 6	632,074.32	3,674,696.00	-68.58	12.98	311.76	7.91	10.63
CT7	POINT	DEFAULT	Cooling Tower 7	632,085.32	3,674,685.20	-68.58	12.98	311.76	7.91	10.63
CT8	POINT	DEFAULT	Cooling Tower 8	632,128.31	3,674,783.45	-68.58	12.98	311.76	7.91	10.63
CT9	POINT	DEFAULT	Cooling Tower 9	632,139.15	3,674,773.10	-68.58	12.98	311.76	7.91	10.63
CT10	POINT	DEFAULT	Cooling Tower 10	632,150.15	3,674,762.30	-68.58	12.98	311.76	7.91	10.63
CT11	POINT	DEFAULT	Cooling Tower 11	632,161.14	3,674,751.80	-68.58	12.98	311.76	7.91	10.63
CT12	POINT	DEFAULT	Cooling Tower 12	632,172.14	3,674,741.45	-68.58	12.98	311.76	7.91	10.63
CT13	POINT	DEFAULT	Cooling Tower 13	632,182.98	3,674,730.49	-68.58	12.98	311.76	7.91	10.63
CT14	POINT	DEFAULT	Cooling Tower 14	632,193.83	3,674,719.99	-68.58	12.98	311.76	7.91	10.63
PTU_1	POINT	DEFAULT	PTU with Warm-up AFT	631,824.04	3,674,915.01	-68.58	18.29	373.15	6.72	2.24
PTU_2	POINT	DEFAULT	PTU with Warm-up AFT	631,834.72	3,674,915.44	-68.58	18.29	373.15	6.72	2.24
FPUMP	POINT	DEFAULT	Fire Water Pump	632,205.46	3,674,827.05	-68.58	4.60	665.00	53.30	0.15
G2_1	POINT	DEFAULT	Generator 2 (3.49 MW) Stack 1	631,966.50	3,674,644.70	-68.58	6.26	748.15	46.36	0.32
G2_2	POINT	DEFAULT	Generator 2 (3.49 MW) Stack 2	631,966.50	3,674,646.58	-68.58	6.26	748.15	46.36	0.32
G2_3	POINT	DEFAULT	Generator 2 (3.49 MW) Stack 3	631,966.50	3,674,648.46	-68.58	6.26	748.15	46.36	0.32
G3_1	POINT	DEFAULT	Generator 3 (3.49 MW) Stack 1	631,966.76	3,674,638.08	-68.58	6.26	748.15	46.36	0.32
G3_2	POINT	DEFAULT	Generator 3 (3.49 MW) Stack 2	631,966.76	3,674,639.96	-68.58	6.26	748.15	46.36	0.32
G3_3	POINT	DEFAULT	Generator 3 (3.49 MW) Stack 3	631,966.76	3,674,641.84	-68.58	6.26	748.15	46.36	0.32
G4_1	POINT	DEFAULT	Generator 4 (3.49 MW) Stack 1	631,966.87	3,674,630.44	-68.58	6.26	748.15	46.36	0.32
G4_2	POINT	DEFAULT	Generator 4 (3.49 MW) Stack 2	631,966.87	3,674,632.32	-68.58	6.26	748.15	46.36	0.32
G4_3	POINT	DEFAULT	Generator 4 (3.49 MW) Stack 3	631,966.87	3,674,634.20	-68.58	6.26	748.15	46.36	0.32
G5_1	POINT	DEFAULT	Generator 5 (3.49 MW) Stack 1	631,966.96	3,674,623.65	-68.58	6.26	748.15	46.36	0.32
G5_2	POINT	DEFAULT	Generator 5 (3.49 MW) Stack 2	631,966.96	3,674,625.53	-68.58	6.26	748.15	46.36	0.32
G5_3	POINT	DEFAULT	Generator 5 (3.49 MW) Stack 3	631,966.96	3,674,627.41	-68.58	6.26	748.15	46.36	0.32
G1_1	POINT	DEFAULT	Generator 1 (2.7 MW) Stack 1	632,140.47	3,674,866.12	-68.58	6.22	763.15	38.08	0.32
G1_2	POINT	DEFAULT	Generator 1 (2.7 MW) Stack 2	632,140.47	3,674,868.00	-68.58	6.22	763.15	38.08	0.32
G1_3	POINT	DEFAULT	Generator 1 (2.7 MW) Stack 3	632,140.47	3,674,869.88	-68.58	6.22	763.15	38.08	0.32
RMP	POINT	DEFAULT	Rock Muffler	632,038.95	3,674,786.46	-68.58	7.32	402.00	4.33	9.29

Note: Coordinates presented are UTM NAD83 Zone 11

m = meter(s)

K = Kelvin

m/s = meter(s) per second

BHE Renewables **Morton Bay Operational Air**
Quality Impacts Analysis Source Emission Rates
April 2023

BHER Morton Bay Operational Modeled Source Emission Rates

Source ID	Source Type	Stack Release Type	Source Description	H2S (g/s)	CO (g/s)	CO8 (g/s)	NO2 (g/s)	NO2A (g/s)	PM25 (g/s)	PM25A (g/s)	PM10 (g/s)	PM10A (g/s)	SO2 (g/s)	SO23 (g/s)	SO24 (g/s)	SO2A (g/s)	NO2C (g/s)	HNO3 (g/s)
CT1	POINT	DEFAULT	Cooling Tower 1	5.01E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-02	1.95E-02	3.26E-02	3.26E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E+02
CT2	POINT	DEFAULT	Cooling Tower 2	5.01E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-02	1.95E-02	3.26E-02	3.26E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E+02
CT3	POINT	DEFAULT	Cooling Tower 3	5.01E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-02	1.95E-02	3.26E-02	3.26E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E+02
CT4	POINT	DEFAULT	Cooling Tower 4	5.01E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-02	1.95E-02	3.26E-02	3.26E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E+02
CT5	POINT	DEFAULT	Cooling Tower 5	5.01E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-02	1.95E-02	3.26E-02	3.26E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E+02
CT6	POINT	DEFAULT	Cooling Tower 6	5.01E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-02	1.95E-02	3.26E-02	3.26E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E+02
CT7	POINT	DEFAULT	Cooling Tower 7	5.01E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-02	1.95E-02	3.26E-02	3.26E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E+02
CT8	POINT	DEFAULT	Cooling Tower 8	5.01E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-02	1.95E-02	3.26E-02	3.26E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E+02
CT9	POINT	DEFAULT	Cooling Tower 9	5.01E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-02	1.95E-02	3.26E-02	3.26E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E+02
CT10	POINT	DEFAULT	Cooling Tower 10	5.01E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-02	1.95E-02	3.26E-02	3.26E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E+02
CT11	POINT	DEFAULT	Cooling Tower 11	5.01E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-02	1.95E-02	3.26E-02	3.26E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E+02
CT12	POINT	DEFAULT	Cooling Tower 12	5.01E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-02	1.95E-02	3.26E-02	3.26E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E+02
CT13	POINT	DEFAULT	Cooling Tower 13	5.01E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-02	1.95E-02	3.26E-02	3.26E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E+02
CT14	POINT	DEFAULT	Cooling Tower 14	5.01E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-02	1.95E-02	3.26E-02	3.26E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E+02
PTU_1	POINT	DEFAULT	PTU with Warm-up AFT	1.56E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.77E-02
PTU_2	POINT	DEFAULT	PTU with Warm-up AFT	1.56E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.77E-02
FPUMP	POINT	DEFAULT	Fire Water Pump	0.00E+00	5.24E-02	6.55E-03	1.29E-03	1.29E-03	3.00E-04	4.12E-05	3.00E-04	4.12E-05	3.40E-07	1.14E-07	1.42E-08	1.94E-09	2.24E-01	3.78E-02
G2_1	POINT	DEFAULT	Generator 2 (3.49 MW) Stack 1	0.00E+00	1.13E+00	1.41E-01	1.24E-03	1.24E-03	8.08E-04	5.53E-05	8.08E-04	5.53E-05	5.92E-07	1.98E-07	4.94E-08	3.38E-09	2.17E-01	4.06E-02
G2_2	POINT	DEFAULT	Generator 2 (3.49 MW) Stack 2	0.00E+00	1.13E+00	1.41E-01	1.24E-03	1.24E-03	8.08E-04	5.53E-05	8.08E-04	5.53E-05	5.92E-07	1.98E-07	4.94E-08	3.38E-09	2.17E-01	4.06E-02
G2_3	POINT	DEFAULT	Generator 2 (3.49 MW) Stack 3	0.00E+00	1.13E+00	1.41E-01	1.24E-03	1.24E-03	8.08E-04	5.53E-05	8.08E-04	5.53E-05	5.92E-07	1.98E-07	4.94E-08	3.38E-09	2.17E-01	4.06E-02
G3_1	POINT	DEFAULT	Generator 3 (3.49 MW) Stack 1	0.00E+00	1.13E+00	1.41E-01	1.24E-03	1.24E-03	8.08E-04	5.53E-05	8.08E-04	5.53E-05	5.92E-07	1.98E-07	4.94E-08	3.38E-09	2.17E-01	4.06E-02
G3_2	POINT	DEFAULT	Generator 3 (3.49 MW) Stack 2	0.00E+00	1.13E+00	1.41E-01	1.24E-03	1.24E-03	8.08E-04	5.53E-05	8.08E-04	5.53E-05	5.92E-07	1.98E-07	4.94E-08	3.38E-09	2.17E-01	4.06E-02
G3_3	POINT	DEFAULT	Generator 3 (3.49 MW) Stack 3	0.00E+00	1.13E+00	1.41E-01	1.24E-03	1.24E-03	8.08E-04	5.53E-05	8.08E-04	5.53E-05	5.92E-07	1.98E-07	4.94E-08	3.38E-09	2.17E-01	4.06E-02
G4_1	POINT	DEFAULT	Generator 4 (3.49 MW) Stack 1	0.00E+00	1.13E+00	1.41E-01	1.24E-03	1.24E-03	8.08E-04	5.53E-05	8.08E-04	5.53E-05	5.92E-07	1.98E-07	4.94E-08	3.38E-09	2.17E-01	4.06E-02
G4_2	POINT	DEFAULT	Generator 4 (3.49 MW) Stack 2	0.00E+00	1.13E+00	1.41E-01	1.24E-03	1.24E-03	8.08E-04	5.53E-05	8.08E-04	5.53E-05	5.92E-07	1.98E-07	4.94E-08	3.38E-09	2.17E-01	4.06E-02
G4_3	POINT	DEFAULT	Generator 4 (3.49 MW) Stack 3	0.00E+00	1.13E+00	1.41E-01	1.24E-03	1.24E-03	8.08E-04	5.53E-05	8.08E-04	5.53E-05	5.92E-07	1.98E-07	4.94E-08	3.38E-09	2.17E-01	4.06E-02
G5_1	POINT	DEFAULT	Generator 5 (3.49 MW) Stack 1	0.00E+00	1.13E+00	1.41E-01	1.24E-03	1.24E-03	8.08E-04	5.53E-05	8.08E-04	5.53E-05	5.92E-07	1.98E-07	4.94E-08	3.38E-09	2.17E-01	4.06E-02
G5_2	POINT	DEFAULT	Generator 5 (3.49 MW) Stack 2	0.00E+00	1.13E+00	1.41E-01	1.24E-03	1.24E-03	8.08E-04	5.53E-05	8.08E-04	5.53E-05	5.92E-07	1.98E-07	4.94E-08	3.38E-09	2.17E-01	4.06E-02
G5_3	POINT	DEFAULT	Generator 5 (3.49 MW) Stack 3	0.00E+00	1.13E+00	1.41E-01	1.24E-03	1.24E-03	8.08E-04	5.53E-05	8.08E-04	5.53E-05	5.92E-07	1.98E-07	4.94E-08	3.38E-09	2.17E-01	4.06E-02
G1_1	POINT	DEFAULT	Generator 1 (2.7 MW) Stack 1	0.00E+00	8.74E-01	1.09E-01	9.56E-04	9.56E-04	6.25E-04	4.28E-05	6.25E-04	4.28E-05	3.41E-06	1.14E-06	2.85E-07	1.95E-08	1.68E-01	3.16E-02
G1_2	POINT	DEFAULT	Generator 1 (2.7 MW) Stack 2	0.00E+00	8.74E-01	1.09E-01	9.56E-04	9.56E-04	6.25E-04	4.28E-05	6.25E-04	4.28E-05	3.41E-06	1.14E-06	2.85E-07	1.95E-08	1.68E-01	3.16E-02
G1_3	POINT	DEFAULT	Generator 1 (2.7 MW) Stack 3	0.00E+00	8.74E-01	1.09E-01	9.56E-04	9.56E-04	6.25E-04	4.28E-05	6.25E-04	4.28E-05	3.41E-06	1.14E-06	2.85E-07	1.95E-08	1.68E-01	3.16E-02
RMP	POINT	DEFAULT	Rock Muffler	1.94E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.21E+00

Notes:

Emission rates were derived from Appendix 5.1A, Operational Emissions Inventory, based on the following:

Short-term emissions from cooling tower operation exclude non-routine operations. Short-term emissions from all other emission sources assume the worst-case operating hour.

Annual emissions from all emission sources represent the maximum of a routine operation year with or without startups, shutdowns, and emission control downtime (i.e., excluding a commissioning year).

Cooling tower emission rates represent the sum of cooling tower and sparger emissions as both vent from the cooling tower.

24-hour emission rates from the diesel fire water pump and diesel-fired emergency generators assume 1 hour per day and 2 hours per day, respectively.

For the 1-hour NO_2 standard, the diesel-fired emergency generators and diesel fire water pump were modeled using an average annual hourly emission rate based on EPA's guidance for intermittent source operations.

HNO_3 emissions for nitrogen deposition assume all nitrogen emitted in the form of NO_X and NH_3 converts to HNO_3 in the atmosphere.

Descriptions of pollutant IDs and their associated averaging periods are as follows:

H2S emission rates correspond to the 1-hour H_2S averaging period.

CO emission rates correspond to the 1-hour CO averaging period.

CO8 emission rates correspond to the 8-hour CO averaging period.

NO2 emission rates correspond to the 1-hour NO_2 averaging period.

NO2A emission rates correspond to the Annual NO_2 averaging period.

PM25 emission rates correspond to the 24-hour $PM_{2.5}$ averaging period.

PM25A emission rates correspond to the Annual $PM_{2.5}$ averaging period.

PM10 emission rates correspond to the 24-hour PM_{10} averaging period.

PM10A emission rates correspond to the Annual PM_{10} averaging period.

SO2 emission rates correspond to the 1-hour SO_2 averaging period.

SO23 emission rates correspond to the 3-hour SO_2 averaging period.

SO24 emission rates correspond to the 24-hour SO_2 averaging period.

SO2A emission rates correspond to the Annual SO_2 averaging period.

NO2C emission rates correspond to the 1-Hour NO_2 averaging period for the CAAQS analysis.

HNO3 emission rates correspond to the Annual HNO_3 averaging period for nitrogen deposition.

g/s = gram(s) per second

BHE Renewables **Morton Bay Operational Air Quality Impacts Analysis Building Data**

April 2023

BHER Morton Bay Operational Modeled Building Data

Building Name	Number of Tiers	Tier Number	Note	Base Elevation (ft)	Tier Height (ft)	Number of Corners	Corner 1 East (X) (m)	Corner 1 North (Y) (m)	Corner 2 East (X) (m)	Corner 2 North (Y) (m)	Corner 3 East (X) (m)	Corner 3 North (Y) (m)	Corner 4 East (X) (m)	Corner 4 North (Y) (m)
BLD1	1.00	1.00	Cooling Tower Bldg	-225.00	37.60	4.00	632,006.94	3,674,748.30	632,019.58	3,674,761.68	632,097.27	3,674,686.42	632,084.47	3,674,673.48
BLD2	1.00	1.00	Maintenance Bldg	-225.00	30.00	4.00	632,026.34	3,674,645.67	632,072.06	3,674,645.67	632,072.06	3,674,615.19	632,026.34	3,674,615.19
BLD3	1.00	1.00	Control Bldg	-225.00	20.00	4.00	632,000.69	3,674,896.65	632,043.33	3,674,896.65	632,043.33	3,674,872.50	632,000.69	3,674,872.50
BLD4	1.00	1.00	Cooling Tower Bldg	-225.00	37.60	4.00	632,115.50	3,674,783.47	632,128.30	3,674,796.41	632,205.99	3,674,721.30	632,192.89	3,674,708.35
G2_B	1.00	1.00	Gen 2 Enc	-225.00	14.10	4.00	631,962.90	3,674,644.70	631,962.90	3,674,648.46	631,979.20	3,674,648.46	631,979.20	3,674,644.70
G3_B	1.00	1.00	Gen 3 Enc	-225.00	14.10	4.00	631,963.16	3,674,638.08	631,963.16	3,674,641.84	631,979.46	3,674,641.84	631,979.46	3,674,638.08
G4_B	1.00	1.00	Gen 4 Enc	-225.00	14.10	4.00	631,963.27	3,674,630.44	631,963.27	3,674,634.20	631,979.57	3,674,634.20	631,979.57	3,674,630.44
G5_B	1.00	1.00	Gen 5 Enc	-225.00	14.10	4.00	631,963.36	3,674,623.65	631,963.36	3,674,627.41	631,979.66	3,674,627.41	631,979.66	3,674,623.65
G1_B	1.00	1.00	Gen 1 Enc	-225.00	14.10	4.00	632,136.87	3,674,866.12	632,136.87	3,674,869.88	632,153.17	3,674,869.88	632,153.17	3,674,866.12
FPUMP_B	1.00	1.00	FP Enc	-225.00	10.00	4.00	632,203.01	3,674,826.49	632,203.01	3,674,827.61	632,207.91	3,674,827.61	632,207.91	3,674,826.49
RM_B	1.00	1.00	RM Enc	-225.00	24.00	4.00	632,034.84	3,674,782.35	632,034.84	3,674,790.58	632,043.06	3,674,790.58	632,043.06	3,674,782.35

Note: Coordinates presented are UTM NAD83 Zone 11

ft = feet

m = meter(s)

BHE Renewables Morton Bay Operational Air

Quality Impacts Analysis Tank Data

April 2023

BHER Morton Bay Operational Modeled Tank Data

Tank Name	Notes	Base Elevation (ft)	Center East (X) (m)	Center North (Y) (m)	Tank Height (ft)	Tank Diameter (ft)
Tank1	TK-2801 THICKENER	-225.00	631,924.57	3,674,671.16	51.00	75.00
Tank2	TK-2601 SEC. CLARIFIER 150-0 DIA.	-225.00	631,947.33	3,674,730.26	51.00	150.00
Tank3	TK-2501 PRIM. CLARIFIER 160-0 DIA.	-225.00	631,945.65	3,674,789.98	53.00	160.00

Note: Coordinates presented are UTM NAD83 Zone 11

ft = feet

m = meter(s)

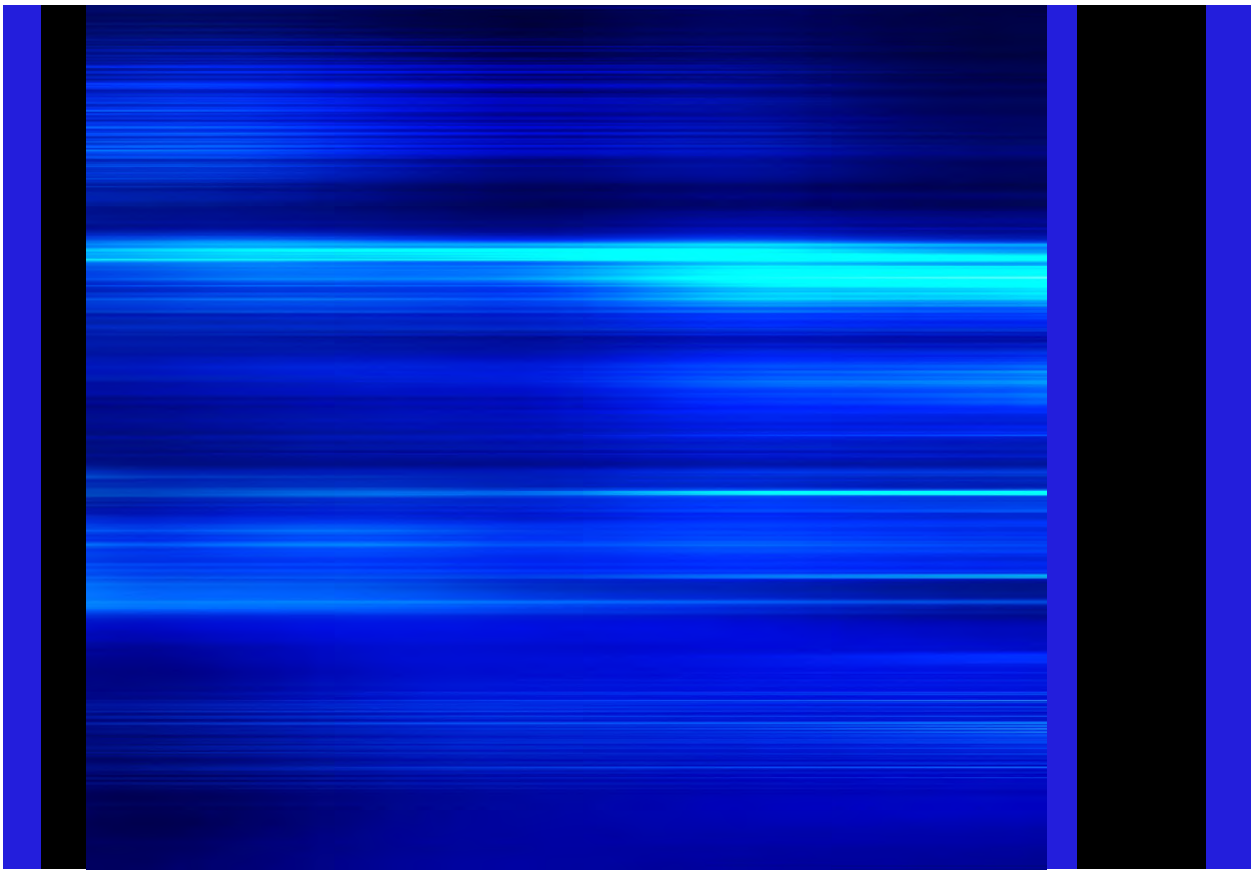
Appendix 5.1C
Air Dispersion Modeling Protocol

Air Dispersion Modeling Protocol for Morton Bay Geothermal Plant

Document No: PPS1116221546SDO
Revision No: 0

BHE Renewables, LLC
Salton Sea Geothermal Project Development

Morton Bay Geothermal Project
November 16, 2022



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Acronyms and Abbreviations

µg/m^3	microgram(s) per cubic meter
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
BHER	Berkshire Hathaway Energy Renewables
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CFR	*Code of Federal Regulations*
CO	carbon monoxide
DPM	diesel particulate matter
EPA	U.S. Environmental Protection Agency
GEP	good engineering practice
H_2S	hydrogen sulfide
HAP	hazardous air pollutant
HARP	Hotspots Analysis and Reporting Program
HI	hazard index
HNO_3	nitric acid
HRA	health risk assessment
ID	identification
MERP	Modeled Emission Rates for Precursor
MB	Morton Bay
MW	megawatt(s)
NAAQS	National Ambient Air Quality Standards
NH_3	ammonia
NLCD	National Land Cover Database
NO_2	nitrogen dioxide
NO_X	oxides of nitrogen
OEHHA	California Office of Environmental Health Hazard Assessment
PM	particulate matter
$PM_{2.5}$	particulate matter less than 2.5 micrometers in diameter
PM_{10}	particulate matter less than 10 micrometers in diameter

ppm	part(s) per million
PRIME	plume rise model enhancement
REL	reference exposure level
SIL	significant impact level
SO_2	sulfur dioxide
SO_X	oxides of sulfur
VOC	volatile organic compound

1. Project Overview

BHE Renewables (BHER) plans to develop and construct a new geothermal power plant called Morton Bay (MB) in Imperial County, California. The proposed site is expected to have an output of 132.6 megawatts (MW). The new plant will be on a parcel currently owned by BHER southeast of the Salton Sea near BHER's existing geothermal power plants. The MB power plant site will include production and reinjection well pads extending off the power plant site and the electrical interconnection (gen-tie) with a new Imperial Irrigation District switching station. An overview of the MB location is included on Figure 1-1.

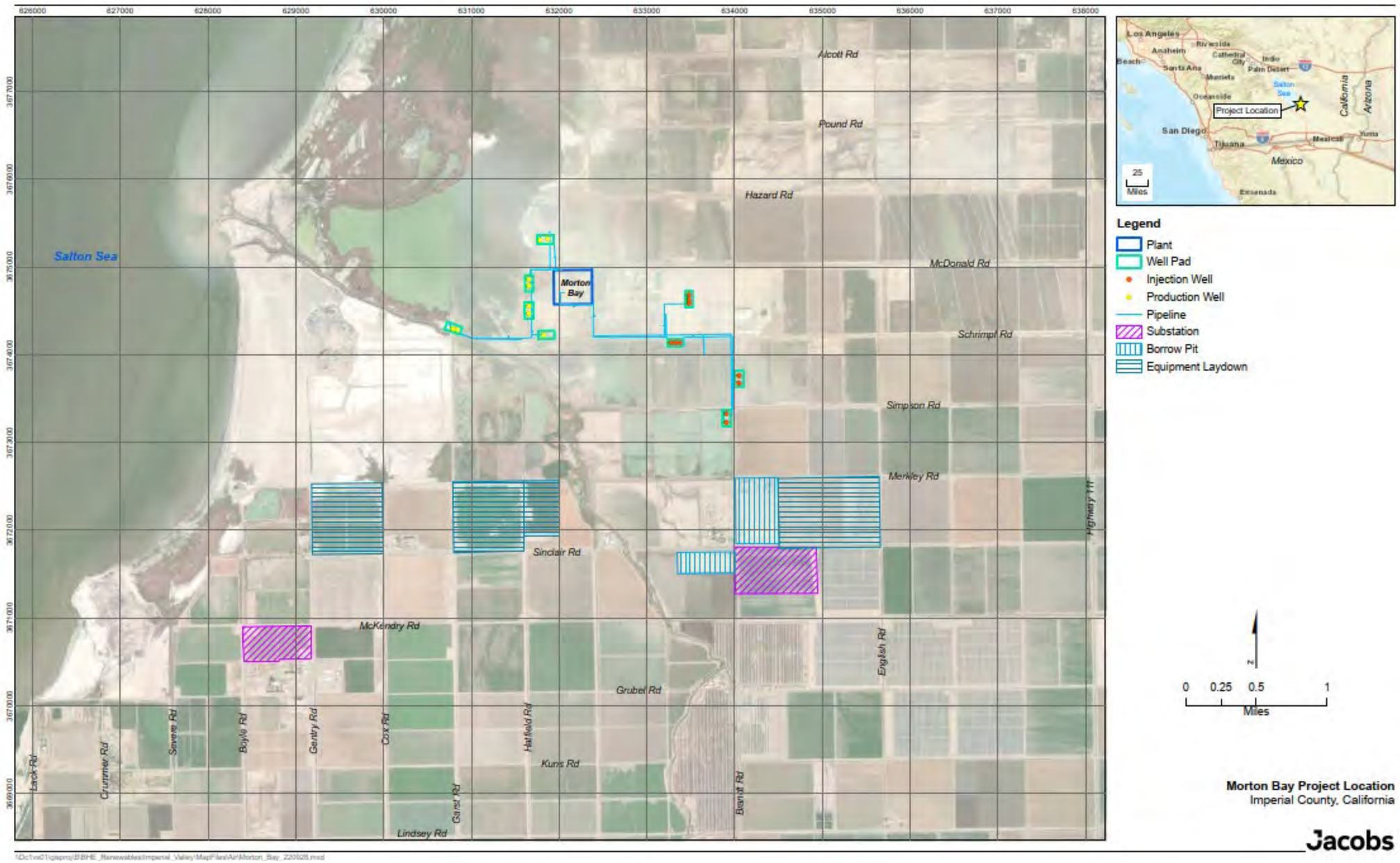


Figure 1-1. Project Location

2. Area and Facility Classification

The proposed MB plant will be situated to the southeast of the Salton Sea southwest from the town of Niland, located in Imperial County, California. Being located in California, the project would be subject to both the federal National Ambient Air Quality Standards (NAAQS) and the State of California Ambient Air Quality Standards (CAAQS).

Imperial County is designated as attainment for the carbon monoxide (CO), sulfur dioxide (SO_2), and nitrogen dioxide (NO_2) NAAQS. The county is in moderate nonattainment for particulate matter less than 2.5 micrometers in diameter ($PM_{2.5}$), and marginal nonattainment for the 8-hour ozone NAAQS. Particulate matter less than 10 micrometers in diameter (PM_{10}) was redesignated to attainment in September 2020.

At the state level, Imperial County is designated as attainment or unclassified for the $PM_{2.5}$, CO, NO_2, SO_2, sulfates, lead, hydrogen sulfide (H_2S), and visibility reducing particulates CAAQS. The county is designated as nonattainment for the ozone and PM_{10} CAAQS.

The primary North American Industrial Classification System for the facility is 221116. The MB plant is not expected to be a "major" source of air pollution. The facility would emit less than 100 tons per year of any regulated pollutant. The site would be a minor source for hazardous air pollutants (HAPs) with total potential aggregate HAP emissions of less than 25 tons per year and emissions of any single HAP of less than 10 tons per year. MB is not a listed facility in 40 *Code of Federal Regulations* (CFR) Part 52 (100 tons per year threshold) and is not otherwise subject to Part 52 Prevention of Significant Deterioration (PSD) requirements due to potential emissions less than 250 tons per year per criteria air pollutants for which the area is designated as attainment. MB emissions are expected to be below the applicable Nonattainment New Source Review threshold of 100 tons per year for moderate nonattainment $PM_{2.5}$ and 100 tons per year each for oxides of nitrogen (NO_X) and volatile organic compound (VOC) for the marginal nonattainment ozone designation as per 40 CFR Part 51.165.

3. Project Description

The proposed MB geothermal power plant would be located on the southern shore of the Salton Sea and is expected to have a net output of 132.6 MW. The new plant will be on a parcel currently owned by BHER east of the Salton Sea near BHER's existing geothermal power plants. The MB power plant site will include production and reinjection well pads extending off the power plant site.

3.1 Emissions Sources

Air emission sources associated with the MB plant will be characterized for inclusion in the dispersion modeling analysis and permit application, where appropriate. The proposed emission sources for the facility include the following source/process types:

- Process-related emissions including:
  a. Geothermal brine steam flashing activities and venting
  b. Geothermal brine steam condensation activities
  c. Drilling operations
- Emergency diesel engines (electrical generators and fire water pump)
- Cooling towers

The well extraction and injection activities would be part of a closed system and not represent a source of emissions; therefore, all emissions would result from within the power plant footprint. A process flow diagram for the facility process is included on Figure 3-1.

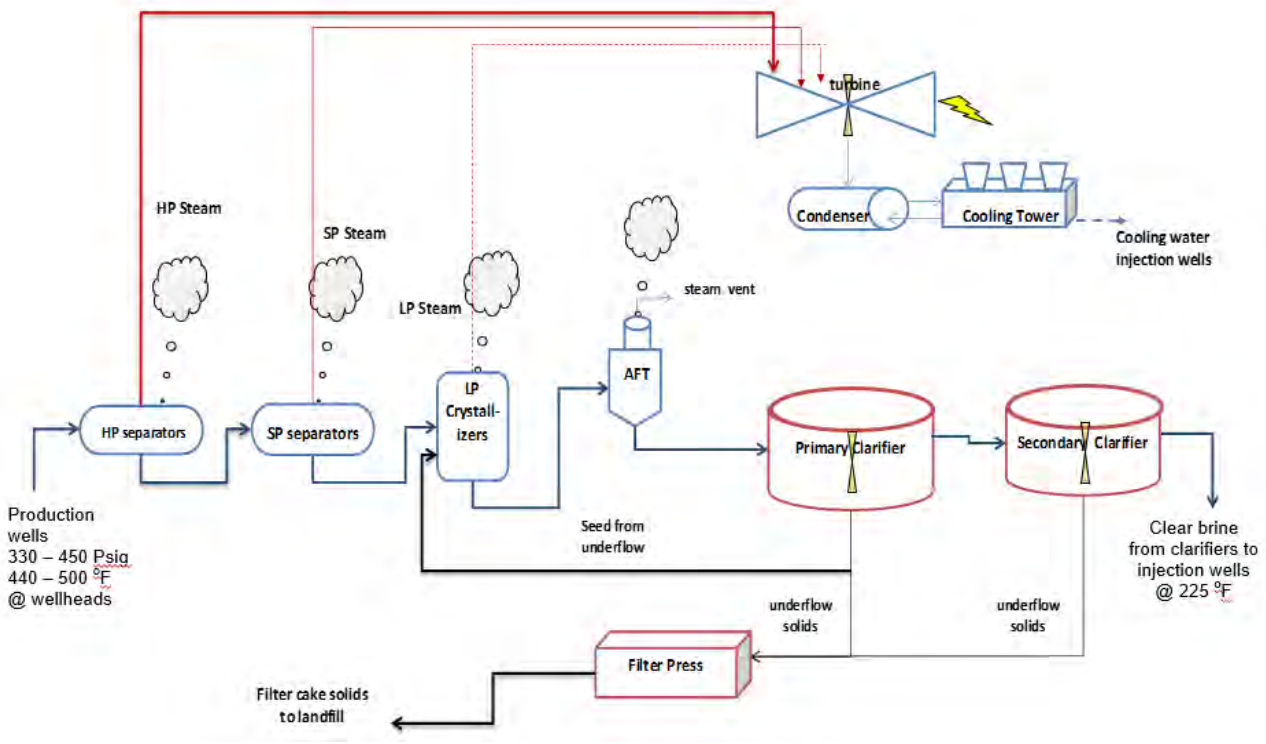


Figure 3-1. Process Flow Diagram

At the time this modeling protocol was submitted, design of the MB project was ongoing. Therefore, detailed information, including source and building locations, is subject to change. Associated emissions data, and other final design data are currently being evaluated and are not presented in this protocol. These data will be finalized and included in the final modeling report.

4. Dispersion Modeling Methodology

4.1 Dispersion Model

The American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) (Version 22112) will be used as recommended in the U.S. Environmental Protection Agency (EPA) Appendix W, Guideline on Air Quality Models (EPA 2017).

AERMOD is a steady-state Gaussian plume model that simulates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of both surface and elevated sources, and both simple and complex terrain. This model is recommended for short-range (less than 50 kilometers) dispersion from the source. The model incorporates the plume rise model enhancement (PRIME) algorithm for modeling building downwash. AERMOD is designed to accept input data prepared by two specific preprocessor programs, AERMET and AERMAP. AERMOD will be run with the following options:

- Direction-specific building downwash
- Regulatory default options unless otherwise specified in this protocol
- Rural dispersion characteristics
- Actual receptor elevations and hill height scales obtained from AERMAP (Version 18081)

4.2 Operational Source Characterization

Operation of the proposed process and equipment systems would result in emissions to the atmosphere of both criteria and toxic air pollutants. Criteria pollutant emissions would consist primarily of NO_X, CO, VOCs, oxides of sulfur (SO_X), PM_{10}, and $PM_{2.5}$. Other regulated air pollutants of ammonia (NH_3), H_2S, and carbon dioxide equivalent will also be quantified. Toxic air pollutants will consist of a combination of non-condensable gases and toxic particulate matter (PM) species.

The MB project operational scenarios would consist of start-up and commissioning activities as well as normal operating conditions post-startup. Emissions for each of these scenarios will be presented in the final modeling report, with the worst-case emissions from both scenarios modeled as applicable to the respective standards.

4.2.1 Cooling Towers

Cooling tower stack diameter, height, flow rate, temperature, drift eliminator efficiency, and location will be based upon the latest design data. A particle size distribution may be applied to the total PM emissions as calculated using the total dissolved solids of the circulating water. The methodology to develop this particle size distribution will be obtained from the published work of Joel Reisman and Gordon Frisbie in *Calculating Realistic PM_{10} Emissions from Cooling Towers* (Resiman and Frisbie 2012). A list of each of the specific cooling tower stack parameters used in the modeling analysis will be included in the final modeling report.

4.2.2 Emergency Diesel Engines

Emergency diesel engine stack diameter, height, flow rate, temperature, and location will be based on the design data provided by the vendors. A list of each of the specific emergency engine stack parameters used in the modeling analysis will be included in the final modeling report.

For purposes of the 1-hour NO_2 standard, emergency engines in this analysis would be classified as intermittent sources because they have less than 500 hours per year of operation according to EPA (EPA 2011). As a result, the annual average hourly emission rate for each engine will be used in the

1-hour averaging period NO_2 modeling analysis, consistent with EPA's Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO_2 NAAQS Memorandum (EPA 2011).

4.2.3 Geothermal Brine Steam Flashing Activities

Onsite operations may occur in the direct release of geothermal brine steam to the atmosphere. At this stage in design, this release would occur either through the use of an atmospheric flash tank or a rock muffler.

Source type characterizations for modeling these sources will be made as their designs are finalized. At the time of this modeling protocol, design is not yet finalized for these sources. All associated data used in the characterization of these sources as well as their release parameters for modeling will be included in the final modeling report.

4.3 Construction Source Characterization

Construction emissions would include emissions from mobile sources including diesel construction-type equipment. These equipment emissions will be evenly distributed over the construction area and modeled as a grid of point (POINT) sources with a horizontal stack release spaced approximately 25 meters apart over the entire construction area. The horizontal release type is an AERMOD option (which negates mechanical plume rise). This conservative approach was used because it is unknown whether all construction equipment will have vertically oriented exhaust stacks. Source parameters for these sources will be included in the final modeling report.

4.4 Building Downwash

Building influences on the air dispersion of emissions from point source stacks will be calculated by incorporating the EPA Building Profile Input Program for use with the PRIME algorithm (BPIP-PRIME). Stack heights, building locations, and building dimensions will be obtained from the most currently available architectural plans and onsite measurements. Stacks located on or adjacent to buildings will be given base elevations of said buildings. A list of the buildings and their coordinates will be included in the final modeling report submitted with the permit application.

As part of this analysis, a good engineering practice (GEP) stack height screening will be performed to determine which stack height will be used in the modeling. The GEP stack height is defined as the height in which the plume dispersion from the stack is not influenced by building downwash. This GEP stack height is calculated as the lesser of the following two criteria:

- 65 meters
- The sum of the maximum building height for which the stack is in the area of influence plus 1.5 times the lesser of the building height or projected building width

The stack heights used in the dispersion modeling will be the actual stack height or the GEP stack height, whichever is less.

4.5 Ambient Air Boundary

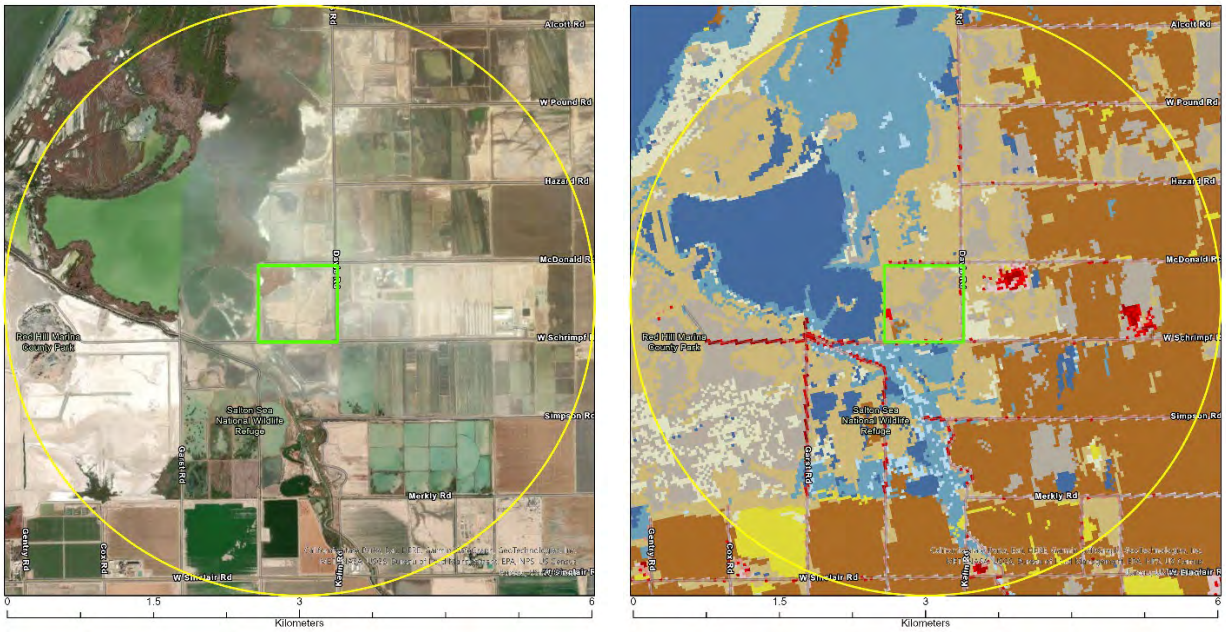
The ambient air boundary is defined by the property line that surrounds the BHER-owned property within which non-authorized personnel access is precluded. A final ambient air boundary figure will be included in the final modeling report submitted with the permit application.

4.6 Rural versus Urban Option

The land use surrounding the facility has been evaluated for classification as either urban or rural. A land use analysis was performed following the Auer land use methodology (Auer 1978) using the most recent

available land use data. Land use data within a 3-kilometer radius for the site was obtained from the U.S. Geological Survey's 2019 National Land Cover Database (NLCD), as shown on Figure 4-1. This data set classified land use for individual 30- by 30-meter cells into 15 primary land use categories for the MB site. Of the 15 land use categories in the 2019 NLCD data set, the following two categories are considered urban for dispersion modeling purposes:

- Developed, Medium Intensity (NLCD Code 23)—This classification includes areas with a mixture of constructed materials and vegetation. Impervious surfaces account for 50 to 79 percent of the total cover.
- Developed, High Intensity (NLCD Code 24)—This classification includes highly developed areas where people reside or work in high numbers. Examples include apartment complexes, row houses, and commercial/industrial spaces. Impervious surfaces account for 80 to 100 percent of the total cover.



Land use Color	Land Use Code ID No.	Land Use Description	Cell Count	% Land Category
	11	Open Water	4,299	8.80%
	21	Developed, Open Space	966	1.98%
	22	Developed, Low Intensity	1,055	2.16%
	23	Developed, Medium Intensity	293	0.60%
	24	Developed, High Intensity	104	0.21%
	31	Barren Land	4,954	10.14%
	52	Shrub/Scrub	8,750	17.92%
	71	Herbaceous	2,298	4.71%
	81	Hay/Pasture	851	1.74%
	82	Cultivated Crops	19,335	39.59%
	90	Woody Wetlands	307	0.63%
	95	Emergent Herbaceous Wetlands	5,629	11.53%

Figure 4-1. Land Use Classification for Morton Bay Geothermal Project

If more than 50 percent of the area within 3 kilometers is classified as urban land use, the URBAN option may be used for AERMOD modeling of the facility. The analysis showed that less than 1 percent of the land within a 3-kilometer radius of the facility may be classified as urban; therefore, the URBAN option in AERMOD will not be used in the dispersion modeling analysis.

4.7 Meteorological Data

Five years of AERMET-processed meteorological data were obtained from the California Air Resources Board (CARB) Hotspots Analysis and Reporting Program (HARP) AERMOD Meteorological Files webpage for Imperial County Airport (KIPL, WBAN ID: 03144). The 5 years of data were processed by CARB with AERMET Version 19191 for 2015 through 2018 and 2021. The years 2019 and 2020 were not included in the meteorological data set because they were likely determined to be incomplete by CARB. The data set was selected based on completeness, similar surrounding land use as the MB plant and proximity to the facility as shown on Figure 4-2. Wind speeds and directions for this data set are presented in the wind rose on Figure 4-3. The average wind speed for the 5-year period was 3.45 meters per second.

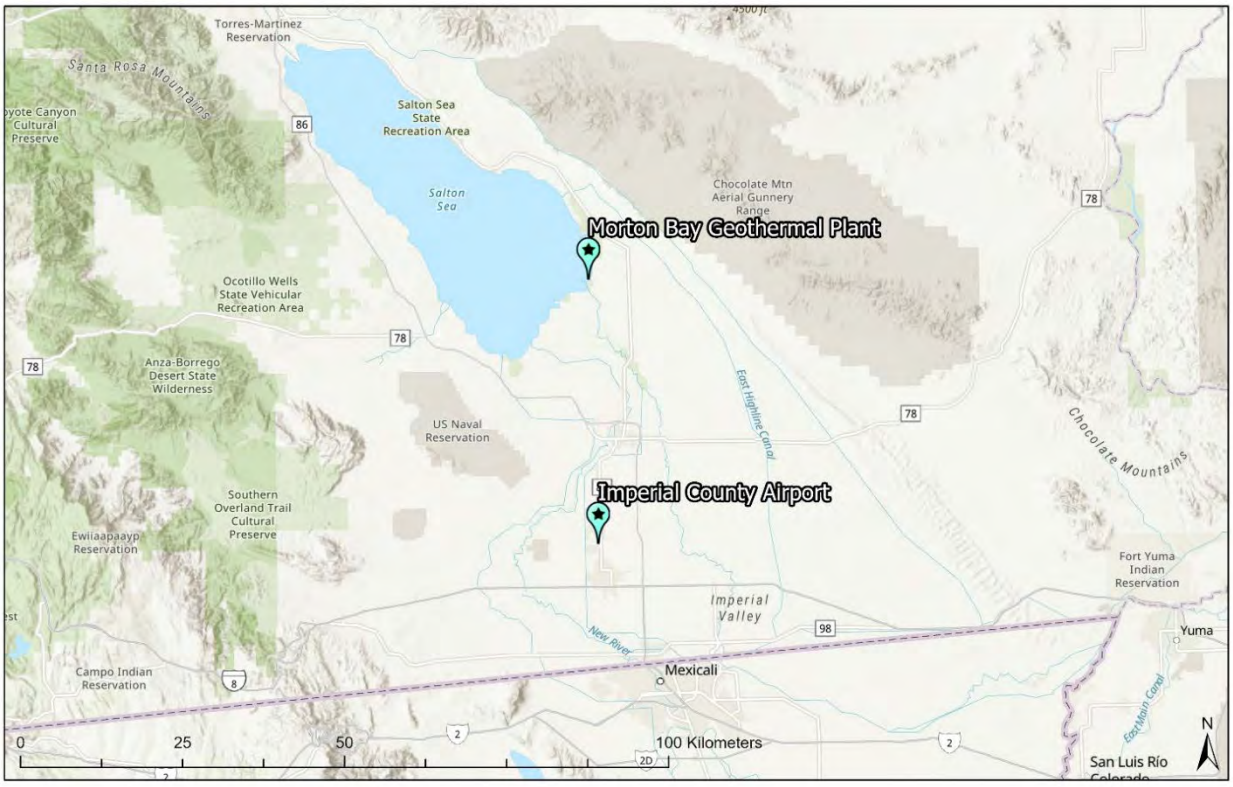


Figure 4-2. Topographical Map of Morton Bay Geothermal Project's Proximity to the Imperial County Airport

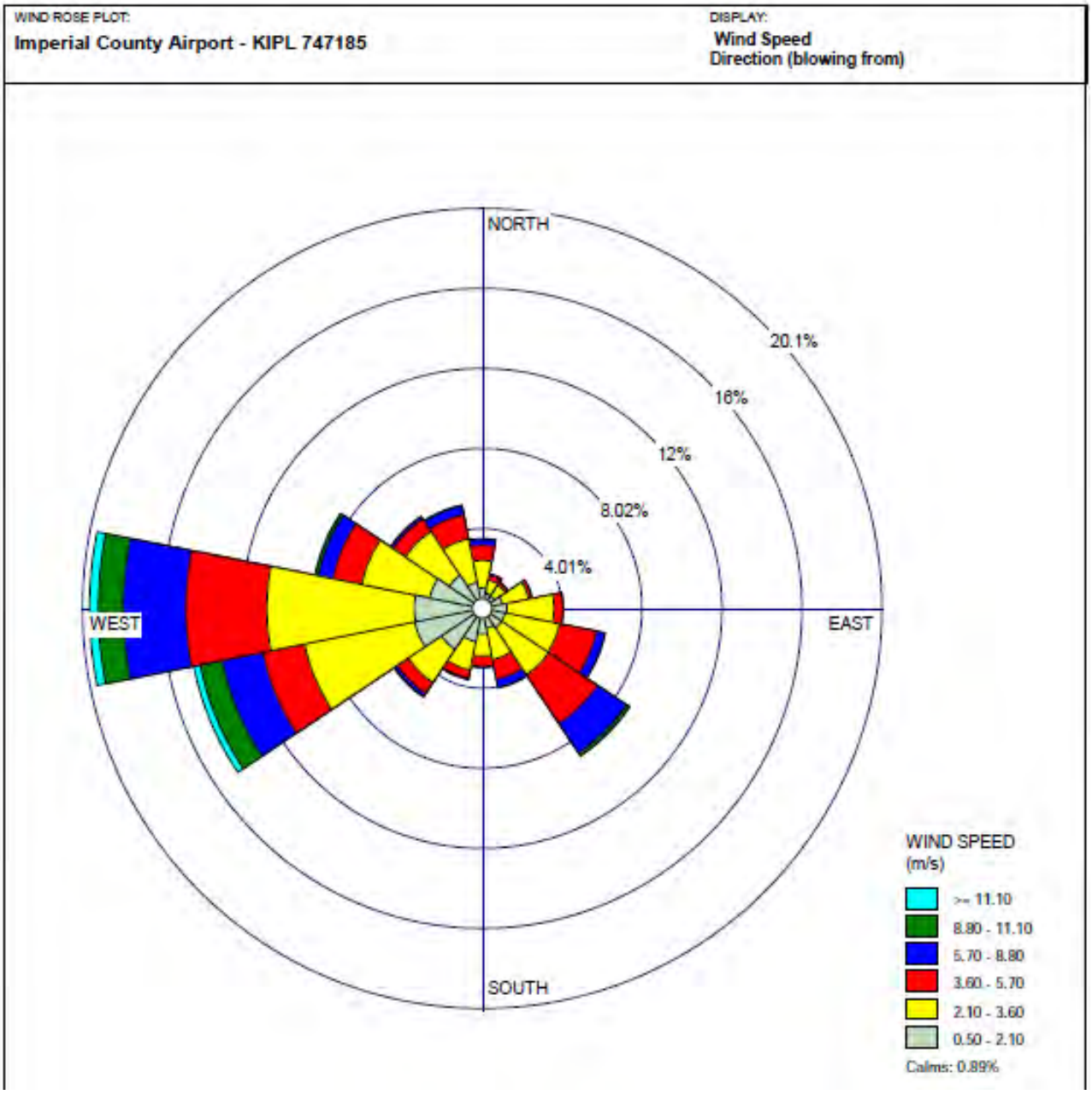


Figure 4-3. Windrose for the 2015 to 2018 and 2021 Meteorological Data for the Imperial County Airport

4.8 Receptors

The ambient air boundary will be defined by the fence line surrounding the facility. The selection of receptors in AERMOD will be as follows:

- Discrete receptors every 25 meters around the ambient air boundary (i.e., fence line)
- 25-meter spacing from the fence line to 500 meters from grid origin
- 100-meter spacing from beyond 500 meters to 1,000 meters from the fence line
- 250-meter spacing from beyond 1,000 meters to 5,000 meters from the fence line
- 500-meter spacing from beyond 5,000 meters to 10,000 meters from the fence line

All receptors and source locations will be expressed in the Universal Transverse Mercator North American Datum 1983, Zone 11 coordinate system. If modeling results show significant impacts at the outer edge of the initial grid, then the grid will be extended accordingly to ensure that the area of maximum modeled impacts is captured. U.S. Geological Survey National Elevation Dataset terrain data will be used in conjunction with the AERMAP preprocessor (Version 18081) to determine receptor elevations and terrain maxima.

4.9 Oxides of Nitrogen Modeling Methodology and Chemistry

The Guideline on Air Quality Models, Appendix W to 40 CFR Part 51 (EPA 2017), recommends a tiered screening approach to characterize the conversion of total NO_X from the proposed source to NO_2. A Tier 1 approach assumes a 100 percent conversion of total NO_X to NO_2 and is typically overly conservative. The Tier 2 approach allows for the use of the Ambient Ratio Method 2 (ARM2). The Tier 1 and Tier 2 options do not require agency approval.

For this analysis, the Tier 2 approach was selected using the ARM2 model with a default in-stack ratio of 0.5 and a default out-of-stack ratio of 0.9. The in-stack ratio may be revised based upon updated engineering data and will be reflected in the final modeling report.

Additionally, emergency diesel engines in this analysis can be classified as intermittent sources because of having less than 500 hours per year of operation according to EPA (EPA 2011). As a result, the annual average hourly emission rate for each engine will be used for the 1-hour averaging period NO_2 modeling analysis, consistent with EPA's *Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-Hour NO_2 National Ambient Air Quality Standard Memorandum* (EPA 2011).

5. Criteria Pollutant Background Concentrations

When necessary, ambient background concentrations will be added to model results for comparison to the NAAQS and CAAQS. Background concentration values for all pollutant averaging times were obtained from EPA's AirData website for years 2019 to 2021. The following sites were used for the 2019-2021 period background concentrations:

- **Monitor Identification (ID):** Niland-English Road (AQS ID: 60254004) [7.6 miles from project]: 24-hour PM_{10} concentrations (2019-2021)
- **Monitor ID:** Brawley-220 Main Street (AQS ID: 60250007) [13.8 miles from project]: 24-hour $PM_{2.5}$ concentrations (2019-2021), and annual $PM_{2.5}$ concentrations (2019-2020)
- **Monitor ID:** El Centro-9th Street (AQS ID: 60251003) [26.1 miles from project]: annual $PM_{2.5}$ concentrations (2021), 1-hour NO_2 concentrations (2019-2021), and annual NO_2 concentrations (2020-2021)
- **Monitor ID:** Calexico-Ethel Street (AQS ID: 60250005) [34.6 miles from project]: annual NO_2 concentrations (2019), 1-hour SO_2 concentrations (2019-2021), 3-hour SO_2 concentrations (2019-2021), 1-hour CO concentrations (2019-2021), and 8-hour CO concentrations (2019-2021).

Background concentration values for pollutants were pulled from the same monitoring site with the exception of 2021 annual $PM_{2.5}$ and 2019 annual NO_2, which were pulled from different stations due to data incompleteness issues. The locations of these monitors relative to the project location are shown in Figure 5-1.

Figure 5-1. Background Monitor Locations in Proximity to the Morton Bay Geothermal Project

The average background concentrations from 2019 to 2021 were chosen for 1-hour SO_2, 24-hour and annual $PM_{2.5}$, and 1-hour NO_2. The maximum background concentrations from 2019 to 2021 were chosen for 1-hour and 8-hour CO, 3-hour SO_2, 24-hour PM_{10}, and annual NO_2. Background design values for each criteria pollutant for NAAQS comparison are shown in Table 5-1.

Table 5-1. Criteria Pollutant Background Concentrations

Pollutant	Averaging Period	Value chosen	2019	2020	2021	Design Value	Units	Concentration ($\mu g/m^3$)[e]
CO[a]	1-hour	Second Max 1-hour	4.30	4.60	3.80	4.60[c]	ppm	5,270
CO[a]	8-hour	Second Max 8-hour	3.10	2.70	2.90	3.10[e]	ppm	3,551
SO_2[a]	1-hour	99th Percentile	5.00	7.00	6.00	6.00[f]	ppb	15.71
SO_2[a]	3-hour	First Max 1-hour	7.50	7.10	8.60	8.60[f]	ppb	22.51
PM_{10}[b]	24-hour	First Max	141.00	143.00	186.00	142.00[e]	$\mu g/m^3$	142.00
PM_{10}[b]	24-hour	Second Max	124.00	142.00	156.00	N/A	$\mu g/m^3$	N/A
$PM_{2.5}$[c]	24-hour	98th Percentile	21.00	21.00	21.00	21.00[f]	$\mu g/m^3$	21.00
$PM_{2.5}$[c]	Annual	Weighted Annual Mean	8.30[d]	9.40	8.30	8.67[f]	$\mu g/m^3$	8.67
NO_2[d]	1-hour	98th Percentile	30.00	36.00	38.00	34.67[e]	ppb	65.22
NO_2[d]	Annual	Annual Mean	9.26[a]	7.93	6.73	9.26[e]	ppb	17.42

Notes:

[a] Monitor Location: 1029 Ethel St, Calexico High School, Calexico, California (Site ID: 60250005)
[b] Monitor Location: 7711 English Road, Niland, California (Site ID: 60254004)
[c] Monitor Location: 220 Main St., Ste 204, Brawley, California (Site ID: 60250007)
[d] Monitor Location: 150 9th St., El Centro, California (Site ID: 60251003)
[e] Maximum fourth highest value observed over 3 years (2019-2021)
[f] Average 2019 to 2021 value chosen for design value
[e] For conversion of ppm and ppb to $\mu g/m^3$, standard conditions assumed (25 degrees Celsius. and 760 millimeters of mercury)

$\mu g/m^3$ = microgram(s) per cubic meter
N/A = not applicable
ppb = part(s) per billion
ppm = part(s) per million

6. Impacts Analysis

6.1 Criteria Pollutants

Modeled concentrations of criteria pollutants emitted by the proposed MB geothermal plant will be compared to the applicable significant impact level (SIL) shown in Table 6-1. If the predicted concentrations are not significant (that is, if they are less than the SIL), the modeling is complete for that pollutant and averaging period and compliance with the NAAQS is demonstrated by not causing or contributing to a violation. If impacts are above the SIL, a cumulative modeling analysis would be required. Imperial County would be contacted and a data request for neighboring facilities would be submitted.

Additionally, CAAQS shown in Table 6-1 will also be considered as part of the modeling analysis.

The results of the project and cumulative modeling impact analyses will be combined with respective background data, where appropriate, and compared to the NAAQS as shown in Table 6-1.

Table 6-1. Summary of Criteria Pollutant Air Quality Standards

Pollutant	Averaging Period	SIL (µg/m³)	NAAQS (µg/m³)	CAAQS (µg/m³)
CO	1-hour	2,000[a]	40,000[c]	22,900[c]
	8-hour	500[a]	10,000[d]	10,000[d]
NO_2	1-hour	7.5[b]	188[e]	338.65[e]
	Annual	1[a]	100[f]	56.44[f]
$PM_{2.5}$	24-hour	1.2[b]	35[g]	--
	Annual	0.2[b]	12[h]	12[h]
PM_{10}	24-hour	5[a]	150[i]	50[i]
	Annual	--	--	20[f]
SO_2	1-hour	7.9[b]	196[j]	--
	3-hour	25[a]	1,300[k]	--
	24-hour	--	--	25
H_2S	1-hour	--	--	41.79 (0.03 ppm) [l]

[a] Design value is the maximum modeled concentration over 5 years
[b] Design value is the maximum 5-year average concentration
[c] Highest of the second highest (H2H) 1-hour concentration
[d] Highest of the second highest (H2H) 8-hour concentration
[e] Highest of 5-year averages of the 98th percentile (H8H) of the annual distribution of maximum daily 1-hour concentrations
[f] Maximum annual average
[g] Annual 98th percentile daily maximum average; 5-year average of eighth high
[h] Highest of the 5-year average of annual concentrations
[i] Highest of the sixth highest (H6H) 24-hour modeled concentrations
[j] Highest of multi-year averages of the 99th percentile (H4H) of the annual distribution of maximum daily 1-hour concentrations
[k] Highest of the second highest (H2H) 3-hour concentration over the entire receptor network for each year modeled
[l] Highest modeled concentration over the entire receptor network

6.1.1 Hydrogen Sulfide Impacts Analysis

H_2S in the ambient air near the Salton Sea is subject to episodic events that result in concentrations which temporarily exceed the CAAQS of 0.03 parts per million (ppm). These episodic events of H_2S exceedances are well known and largely due to biogenic sources and activity (SCAQMD 2021). As a result, monitoring data in the region may not be representative for use in a CAAQS modeling analysis.

Specifically, the 1-hour H_2S CAAQS was adopted in 1969 for purposes of odor control and not for protection of public and environmental health. People have experienced eye irritation at concentrations of 50-ppm which is much greater than the CAAQS of 0.03-ppm (CARB 2022a). Therefore, temporary exceedances of the H_2S CAAQS would not result in elevated exposure of the public and environment to H_2S health-related risks but would be characterized as a nuisance and an odor impact.

As a result of the project location and nature of the standard, H_2S will be analyzed similarly to nuisance-related impacts caused by odorous compounds. Specifically, the 1-hour H_2S analysis will follow the ICAPCD CEQA Air Quality Handbook methodology for assessing odor-related impacts, as presented in Section 4.6(b), which states that H_2S emissions may result in impacts that would not be significant except as a nuisance. The Guidelines further provide the respective screening distances for odor impacts in Table 3, which is 1 mile for all facility types (ICAPCD 2017).

The nearest residences and sensitive receptors are located greater than 1 mile away from the project location. Given the location of these receptors and the ICAPCD CEQA Guidelines, the 1-hour H_2S modeling analysis will not include any receptors within 1 mile from the project. Any impacts within this 1-mile radius would be considered to be nuisance-related and not expose any nearby residences or sensitive receptors to any potential nuisances.

6.1.2 Significant Impact Level for Ozone and Secondary $PM_{2.5}$

Although it is expected that the air quality impacts for VOC as an ozone precursor will be below the EPA regulatory limit, the additive precursor impact assessment for ozone may be performed. The lowest illustrative Modeled Emission Rates for Precursors (MERPs) values from Table 4-1 for the southwest of the final MERPs guidance (EPA 2019) will be used for the additive precursor assessment. The following calculation will be carried out to perform the VOC precursor impacts on 8-hour daily maximum ozone:

$$\frac{Total\ NOx\ Emissions\ from\ Project}{Lowest\ Illustrative\ MERPS\ value\ for\ NOx} + \frac{Total\ VOC\ Emissions\ from\ Project}{Lowest\ Illustrative\ MERPS\ value\ for\ VOC} = Impact\ (\%)$$

If the calculated impacts are below 100 percent, then the ozone SIL will not be exceeded.

Air quality impacts from secondary $PM_{2.5}$ may be carried out for SIL analysis. To estimate the impacts of precursors to the $PM_{2.5}$ SIL, primary 24-hour and annual $PM_{2.5}$ will be modeled with AERMOD. The impact from AERMOD will be compared against the SIL and the percentual contribution to the SIL will be calculated for both averaging periods (24-hour and annual). The secondary impacts will be calculated based on the representative lowest MERPs values from Table 4-1 for the southwest of the final MERPs guidance with the following equation:

$$\frac{Total\ NOx\ Emissions\ from\ Project}{Lowest\ Illustrative\ NOx\ annual\ or\ 24hr\ PM2.5\ MERPs\ value}$$

$$+\frac{Total\ SO2\ Emissions\ from\ Project}{Lowest\ Illustrative\ SO2\ annual\ or\ 24hr\ PM2.5\ MERPs\ value} = Impact\ (\%)$$

The total impact from secondary $PM_{2.5}$ will be added to the contribution from primary $PM_{2.5}$. If the total contribution from the primary plus secondary $PM_{2.5}$ is greater than 100 percent, then a cumulative analysis and a comparison to the NAAQS will be required.

6.2 Operational Toxic Air Pollutants

The most recent version of HARP2 (Version 22118 [CARB 2022b]), with the revised unit risk and cancer potency values, updated October 2022, will be used for the toxic air pollutants analysis. The updated sensitivity factors will be applied in accordance with the *Risk Management Guidance for Stationary Sources of Air Toxics* (CARB 2015).

The deposition rate modeled in HARP2 will be conservatively set to 0.05 meter per second for uncontrolled sources for preliminary analysis. This assumption may be refined to 0.02 meter per second if refined source information becomes available.

6.2.1 Risk Evaluation

Risk characterization from toxics emitted by the facility will be carried out according to the procedures specified by California Office of Environmental Health Hazard Assessment (OEHHA) guidance for both carcinogenic and noncarcinogenic risks (OEHHA 2015).

As recommended by the 2015 OEHHA and CARB Guidance, a Tier 1 assessment will be performed. The Tier 1 assessment is the most conservative of the four tier assessment methodologies identified in the OEHHA guidance and uses a standard point-estimate approach with standard OEHHA assumptions.

Risk will be evaluated for each of the three receptor types:

- Maximally exposed individual resident (MEIR)
- Maximally exposed individual worker (MEIW)
- Maximally exposed sensitive receptor (MESR)

6.2.2 Carcinogenic Risk

Residential and sensitive cancer risks will be evaluated using the 30-year continuous exposure duration scenario and worker cancer risk will be evaluated using the 25-year exposure duration (8 hours per day starting at age 16 years old) as recommended in the OEHHA guidelines (OEHHA 2015). Based on the OEHHA guidelines, the derived (adjusted) method in HARP2 will be used for the cancer risk evaluation, which uses the 95th percentile breathing rate from the third trimester to 2 years and the 80th percentile inhalation rate from 2 years to 70 years for residential cancer risk assessments (CARB 2015). The 30-year and 25-year exposure durations for residential and commercial/industrial receptors, respectively, are obtained from the OEHHA guidelines (OEHHA 2015).

Cancer risks will be evaluated based on the annual toxic air contaminant (TAC) emission rates from the emission inventory, ground-level concentrations as obtained from the dispersion modeling analysis, inhalation cancer potency, oral slope factor, frequency and duration of exposure at the receptor, age-specific sensitivity factors, and breathing rates of the exposed persons. Cancer risk results will be expressed on an incremental increase of risk above baseline as a number per million basis.

6.2.3 Noncarcinogenic Chronic Exposure

Chronic toxicity is defined as adverse health effects from prolonged chemical exposure caused by chemicals accumulating in the body. To assess chronic noncancer exposures, annual TAC ground-level concentrations are compared with the reference exposure levels (RELs) developed by OEHHA to obtain a chronic hazard index (HI). The REL is a concentration in ambient air at, or below which, no adverse health effects are anticipated. Noncancer chronic health risks are calculated as a hazard quotient, which is the calculated exposure of each contaminant divided by its REL. Hazard quotients for pollutants affecting the same target organ are summed with the resulting totals expressed as HIs for each organ system.

6.2.4 Noncarcinogenic Acute Exposure

Acute toxicity is defined as adverse health effects caused by a brief chemical exposure of no more than 24 hours. To assess acute noncancer exposures, 1 hour TAC ground-level concentrations are compared with the acute REL to obtain an acute HI. Similar to assessing chronic noncancer health risks, acute noncancer health risks are calculated as a hazard quotient, which is the calculated exposure of each contaminant divided by its REL. Hazard quotients for pollutants affecting the same target organ are summed with the resulting totals expressed as HIs for each organ system.

6.3 Exposure Pathways

For this risk analysis, exposure pathways will be included for each risk scenario as specified in Table 6-2.

Table 6-2. Summary of HARP2 Exposure Pathways

Risk Analysis	Model Exposure Pathways	Intake Rate Percentile
Acute	Inhalation	N/A
Noncancer Chronic	Inhalation Soil Ingestion Dermal Absorption Mother's Milk Homegrown Produce Beef/Dairy (Farming) Pig/Chicken/Egg (Farming)	N/A
Cancer	Inhalation Soil Ingestion Dermal Absorption Mother's Milk Homegrown Produce Beef/Dairy (Farming) Pig/Chicken/Egg (Farming)	RMP Using the Derived Method

6.4 Construction Air Toxic Emissions

To determine impacts from TACs from construction activities, a screening-level health risk assessment (HRA) will be performed for the project's construction emissions. Diesel particulate matter (DPM) would be the only TAC evaluated in the HRA for construction equipment and vehicle emissions, which would be based upon construction equipment combustion PM_{10} emissions as a surrogate.

A screening HRA will be conducted following the OEHHA's Air Toxics Hot Spots Program *Guidance Manual for Preparation of Health Risk Assessments* (OEHHA 2015).

Cancer and noncancer chronic health risks at each receptor will be calculated by using equations from the Air Toxics Hot Spots Program *Guidance Manual for Preparation of Health Risk Assessments* (OEHHA 2015) to convert the modeled ground-level DPM concentrations to health risk values. Cancer risk will be expressed as a numerical excess lifetime cancer risk per 1 million exposed individuals. The noncancer health effects associated with chronic exposures are expressed as chronic HI, which is the ratio of expected exposure levels to acceptable chronic RELs. RELs are concentrations of a chemical at or below which adverse noncancer health effects are not anticipated to occur for a specified exposure duration.

Noncancer acute health risks due to 1-hour exposure to TACs will not be estimated, because currently no acute RELs were developed for DPM (OEHHA 2015; OEHHA & CARB 2022).

6.5 Class I Area Analyses

As described above, the project is not expected to result in emission increases that would exceed PSD thresholds. Additionally, there are no federally designated Class I areas located within 50 kilometers of the proposed project. Therefore, no visibility or Class I air quality-related values screening analyses would be required.

6.6 Fumigation Analysis

The proposed project is located within 3,000 meters of the Salton Sea shoreline; therefore, a fumigation screening analysis will be performed as part of this analysis. This analysis will use the EPA developed SCREEN3 model to calculate the air quality impacts during a shoreline fumigation scenario.

6.7 Nitrogen Deposition Analysis

The proposed project may result in emissions of nitrogenous compounds such as NO_X and NH_3. Nitrogen oxide gases (NO and NO_2) convert to nitrate particulates in a form that is suitable for uptake by most plants and could promote plant growth and primary productivity. Coastal salt marshes are a common natural habitat in the vicinity of the project where nitrogen deposition may occur. If required, a deposition analysis would be performed using AERMOD with the options and inputs as described in this modeling protocol. In addition, the following data would be used/assumed for this analysis:

- AERMOD wet and dry deposition options. Depositional rates and parameters would be based upon nitric acid (HNO_3) which, of all the depositing species, has the highest affinity for impacts to soils and vegetation and tendency to stick to what it is deposited on.
- Dry deposition land use characteristics would be developed using satellite aerial imagery for each 10-degree increment within a 3-kilometer radius surrounding the project.
- Dry deposition seasonal categories would be assigned based upon historical meteorological trends for the region.
- NO_X and NH_3 would be 100 percent converted into atmospherically-derived nitrogen at the release point, where applicable, rather than allowing for the conversion of NO_X and NH_3 to occur over distance and time within the atmosphere, which would be more realistic.
- Maximum settling velocities would be selected to produce conservative deposition rates.

7. References

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Appendix 5.1D
Construction Emissions Inventory and Air Quality Impacts Analysis

BHE Renewables

Morton Bay Construction Emissions

Construction Emissions Modeling Summary

April 2023

BHER Morton Bay Onsite Construction Emissions for Modeling

Onsite Construction [a]	Criteria Pollutant Emissions						
	CO	NO_X	SO_X	PM_{10} - Combustion	$PM_{2.5}$ - Combustion	Fugitive PM_{10}	Fugitive $PM_{2.5}$
Maximum Daily Emissions (lb/day)	269.9	126.4	0.63	3.56	3.33	5.8	0.65
Average Annual Emissions (tpy) [b]	19.1	7.54	0.04	0.20	0.19	0.50	0.05

Notes:

[a] For purposes of determining air quality impacts associated with construction activities, only emissions from onsite construction activities were evaluated. This includes emissions resulting from operation of onsite construction equipment and vehicles, as well as onsite fugitive dust emissions. It was also assumed that construction activities would occur for up to 20 hours per day.

[b] Maximum project emissions were conservatively averaged over the months in which heavy construction activity is expected to determine a 12-month total for modeling.

BHE Renewables

Morton Bay Construction Emissions

Construction Emissions Summary and Threshold Comparison

April 2023

BHER Morton Bay Construction Emissions

Construction	Criteria Pollutant Emissions					
	CO	VOC	NO_X	SO_X	PM_{10} [a]	$PM_{2.5}$ [a]
Average Daily Emissions (lb/day) [b]	478	46.1	119	1.15	23.1	17.2
Maximum Project Emissions (tons)	159	15.4	39.8	0.38	7.71	5.73
ICAPCD Thresholds of Significance (lb/day) [c]	550	75	100	N/A	150	N/A
Exceeds Threshold (Y/N)?	N	N	Y	N/A	N	N/A

Construction	GHG Emissions			
	CO_2	N_2O	CH_4	CO_2e [d]
Average Daily Emissions (metric tons/day) [b]	44.9	3.57E-04	1.79E-03	45.0
Maximum Project Emissions (metric tons)	29,928	2.38E-01	1.20E+00	30,029
Average Yearly Construction Emissions (metric tons/year)	12,384	9.85E-02	4.95E-01	12,426
Thresholds of Significance (metric tons/year) [e]	N/A	N/A	N/A	10,000
Exceeds Threshold (Y/N)?	N/A	N/A	N/A	Y

Notes:

N/A = Not applicable (no construction significance threshold exists for this pollutant)

[a] These estimates include both fugitive dust emissions and exhaust emissions.

[b] The results reported here are the total project emissions conservatively averaged over the months in which heavy construction activity is expected. Peak daily emissions may be higher than what is presented.

[c] ICAPCD Thresholds of Significance taken from Table 4 of the *2017 CEQA Air Quality Handbook* (ICAPCD 2017).

[d] The following global warming potentials were used to estimate CO_2 equivalent emissions, per 40 CFR Part 98, Table A-1:

CH_4 = 25

N_2O = 298

[e] ICAPCD does not have thresholds of significance for GHGs, so the SCAQMD threshold was used for CO_2e (http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf).

BHE Renewables

Morton Bay Construction Emissions

Construction Emissions Summary by Source Category

April 2023

CO Emissions

Emission Source	CO Emissions by Month																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Construction Equipment																		
Total (lb/month)	0.00	0.00	0.00	1,928.16	2,403.64	2,890.25	3,133.61	2,001.66	2,173.79	2,839.15	4,242.26	4,242.26	4,972.53	4,972.53	6,204.64	5,165.89	4,972.53	5,046.37
Total (lb/day)	0.00	0.00	0.00	83.83	104.51	125.66	136.24	87.03	94.51	123.44	184.45	184.45	216.20	216.20	269.77	224.60	216.20	219.41
Offsite Construction Equipment																		
Total (lb/month)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10,829.38	10,985.10	10,985.10	10,985.10	10,985.10	10,985.10	11,443.48	11,443.48	10,985.10	10,985.10
Total (lb/day)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	470.84	477.61	477.61	477.61	477.61	477.61	497.54	497.54	477.61	477.61
Onsite Construction Vehicle																		
Total (lb/month)	0.00	0.00	0.00	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77
Total (lb/day) [a]	0.00	0.00	0.00	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Onsite Construction Vehicle Idle Emissions																		
Total (lb/month)	0.04	0.06	0.13	0.20	0.34	0.34	0.38	0.52	0.62	0.62	0.78	0.95	1.16	1.30	1.29	1.23	1.14	0.92
Total (lb/day) [a]	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.03	0.04	0.05	0.06	0.06	0.05	0.05	0.04
Onroad Construction Vehicle																		
Total (lb/month)	0.02	0.04	0.08	33.85	55.02	164.62	248.95	270.12	350.27	409.29	514.78	506.50	679.52	713.49	641.81	629.03	687.94	873.17
Total (lb/day) [a]	0.00	0.00	0.00	1.47	2.39	7.16	10.82	11.74	15.23	17.80	22.38	22.02	29.54	31.02	27.90	27.35	29.91	37.96
Total Project CO Emissions (Construction Equipment and Vehicles)																		
Total Onsite Monthly Emissions (lb/month)	**0.04**	**0.06**	**0.13**	**1,930.14**	**2,405.75**	**2,892.37**	**3,135.76**	**2,003.95**	**2,176.18**	**2,841.53**	**4,244.81**	**4,244.98**	**4,975.46**	**4,975.61**	**6,207.70**	**5,168.89**	**4,975.44**	**5,049.06**
Total Onsite Daily Emissions (lb/day)	**0.00**	**0.00**	**0.01**	**83.92**	**104.60**	**125.76**	**136.34**	**87.13**	**94.62**	**123.54**	**184.56**	**184.56**	**216.32**	**216.33**	**269.90**	**224.73**	**216.32**	**219.52**
Total Offsite Monthly Emissions (lb/month)	**0.02**	**0.04**	**0.08**	**33.85**	**55.02**	**164.62**	**248.95**	**270.12**	**11,179.65**	**11,394.38**	**11,499.87**	**11,491.60**	**11,664.62**	**11,698.59**	**12,085.29**	**12,072.52**	**11,673.03**	**11,858.27**
Total Offsite Daily Emissions (lb/day)	**0.00**	**0.00**	**0.00**	**1.47**	**2.39**	**7.16**	**10.82**	**11.74**	**486.07**	**495.41**	**499.99**	**499.63**	**507.16**	**508.63**	**525.45**	**524.89**	**507.52**	**515.58**
Total Monthly Emissions (lb/month)	**0.06**	**0.10**	**0.21**	**1,963.99**	**2,460.77**	**3,056.99**	**3,384.71**	**2,274.07**	**13,355.83**	**14,235.92**	**15,744.68**	**15,736.58**	**16,640.08**	**16,674.19**	**18,292.99**	**17,241.41**	**16,648.47**	**16,907.33**
Total Daily Emissions (lb/day)	**0.00**	**0.00**	**0.01**	**85.39**	**106.99**	**132.91**	**147.16**	**98.87**	**580.69**	**618.95**	**684.55**	**684.20**	**723.48**	**724.96**	**795.35**	**749.63**	**723.85**	**735.10**
Rolling 12 Month Total (Tons)												**36.11**	**44.43**	**52.76**	**61.91**	**69.55**	**76.64**	**83.57**
Total Project Emissions (tons)	**159.25**																	
Average Daily Emissions (lb/day) [b, c]	**477.53**																	

VOC Emissions

Emission Source	VOC Emissions by Month																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Construction Equipment																		
Total (lb/month)	0.00	0.00	0.00	125.22	180.12	189.78	238.03	106.05	109.83	127.98	154.96	154.96	185.16	185.16	347.66	188.20	185.16	186.78
Total (lb/day)	0.00	0.00	0.00	5.44	7.83	8.25	10.35	4.61	4.78	5.56	6.74	6.74	8.05	8.05	15.12	8.18	8.05	8.12
Offsite Construction Equipment																		
Total (lb/month)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,379.26	1,381.37	1,381.37	1,381.37	1,381.37	1,381.37	1,388.57	1,388.57	1,381.37	1,381.37
Total (lb/day)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	59.97	60.06	60.06	60.06	60.06	60.06	60.37	60.37	60.06	60.06
Onsite Construction Vehicle																		
Total (lb/month)	0.00	0.00	0.00	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Total (lb/day) [a]	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
Onsite Construction Vehicle Idle Emissions																		
Total (lb/month)	0.00	0.00	0.01	0.01	0.02	0.02	0.02	0.03	0.04	0.04	0.05	0.06	0.07	0.08	0.08	0.08	0.07	0.06
Total (lb/day) [a]	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
Onsite Paving																		
Total (lb/month)	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	17.03	17.03	0.00	0.00
Total (lb/day)	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	0.74	0.74	0.00	0.00
Offsite Paving																		
Total (lb/month)	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	40.37	40.37	0.00	0.00
Total (lb/day)	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	1.76	1.76	0.00	0.00
Onroad Construction Vehicle																		
Total (lb/month)	0.00	0.01	0.01	0.53	0.86	2.52	3.79	4.12	5.34	6.23	7.84	7.73	10.37	10.90	9.82	9.61	10.49	13.27
Total (lb/day) [a]	0.00	0.00	0.00	0.02	0.04	0.11	0.16	0.18	0.23	0.27	0.34	0.34	0.45	0.47	0.43	0.42	0.46	0.58
Total Project VOC Emissions (Construction Equipment, Paving, and V																		
Total Onsite Monthly Emissions (lb/month)	**0.00**	**0.00**	**0.01**	**125.29**	**180.20**	**189.85**	**238.10**	**106.14**	**109.92**	**128.07**	**155.06**	**155.07**	**185.28**	**185.29**	**364.83**	**205.36**	**185.28**	**186.89**
Total Onsite Daily Emissions (lb/day)	**0.00**	**0.00**	**0.00**	**5.45**	**7.83**	**8.25**	**10.35**	**4.61**	**4.78**	**5.57**	**6.74**	**6.74**	**8.06**	**8.06**	**15.86**	**8.93**	**8.06**	**8.13**
Total Offsite Monthly Emissions (lb/month)	**0.00**	**0.01**	**0.01**	**0.53**	**0.86**	**2.52**	**3.79**	**4.12**	**1,384.61**	**1,387.60**	**1,389.21**	**1,389.10**	**1,391.74**	**1,392.27**	**1,438.76**	**1,438.56**	**1,391.86**	**1,394.63**
Total Offsite Daily Emissions (lb/day)	**0.00**	**0.00**	**0.00**	**0.02**	**0.04**	**0.11**	**0.16**	**0.18**	**60.20**	**60.33**	**60.40**	**60.40**	**60.51**	**60.53**	**62.55**	**62.55**	**60.52**	**60.64**
Total Monthly Emissions (lb/month)	**0.01**	**0.01**	**0.02**	**125.82**	**181.06**	**192.37**	**241.90**	**110.26**	**1,494.53**	**1,515.67**	**1,544.27**	**1,544.17**	**1,577.02**	**1,577.56**	**1,803.59**	**1,643.92**	**1,577.14**	**1,581.52**
Total Daily Emissions (lb/day)	**0.00**	**0.00**	**0.00**	**5.47**	**7.87**	**8.36**	**10.52**	**4.79**	**64.98**	**65.90**	**67.14**	**67.14**	**68.57**	**68.59**	**78.42**	**71.47**	**68.57**	**68.76**
Rolling 12 Month Total (Tons)												**3.48**	**4.26**	**5.05**	**5.95**	**6.71**	**7.41**	**8.11**
Total Project Emissions (tons)	**15.38**																	
Average Daily Emissions (lb/day) [b, c]	**46.13**																	

BHE Renewables

Morton Bay Construction Emissions

Construction Emissions Summary by Source Category

April 2023

CO Emissions

Emission Source	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Construction Equipment																		
Total (lb/month)	5,326.99	5,607.62	5,290.68	5,290.68	5,216.83	5,216.83	855.16	855.16	695.25	518.38	346.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (lb/day)	231.61	243.81	230.03	230.03	226.82	226.82	37.18	37.18	30.23	22.54	15.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Construction Equipment																		
Total (lb/month)	10,985.10	10,985.10	11,140.81	11,140.81	11,140.81	11,140.81	11,140.81	11,140.81	10,985.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (lb/day)	477.61	477.61	484.38	484.38	484.38	484.38	484.38	484.38	477.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Construction Vehicle																		
Total (lb/month)	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (lb/day) [a]	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Construction Vehicle Idle Emissions																		
Total (lb/month)	0.82	0.82	0.78	0.78	0.35	0.26	0.26	0.26	0.26	0.07	0.07	0.07	0.47	0.47	0.44	0.44	0.35	0.35
Total (lb/day) [a]	0.04	0.04	0.03	0.03	0.02	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	0.02
Onroad Construction Vehicle																		
Total (lb/month)	961.64	1,109.18	1,117.58	1,180.81	1,151.04	1,028.73	919.13	670.42	295.24	134.94	97.00	80.14	55.10	42.45	0.28	0.28	0.22	0.22
Total (lb/day) [a]	41.81	48.23	48.59	51.34	50.05	44.73	39.96	29.15	12.84	5.87	4.22	3.48	2.40	1.85	0.01	0.01	0.01	0.01
Total Project CO Emissions (Construction Equipment and Vehicles)																		
Total Onsite Monthly Emissions (lb/month)	**5,329.59**	**5,610.21**	**5,293.22**	**5,293.22**	**5,218.96**	**5,218.86**	**857.19**	**857.19**	**697.28**	**520.23**	**348.09**	**0.07**	**0.47**	**0.47**	**0.44**	**0.44**	**0.35**	**0.35**
Total Onsite Daily Emissions (lb/day)	**231.72**	**243.92**	**230.14**	**230.14**	**226.91**	**226.91**	**37.27**	**37.27**	**30.32**	**22.62**	**15.13**	**0.00**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**
Total Offsite Monthly Emissions (lb/month)	**11,946.74**	**12,094.28**	**12,258.39**	**12,321.63**	**12,291.85**	**12,169.54**	**12,059.94**	**11,811.23**	**11,280.34**	**134.94**	**97.00**	**80.14**	**55.10**	**42.45**	**0.28**	**0.28**	**0.22**	**0.22**
Total Offsite Daily Emissions (lb/day)	**519.42**	**525.84**	**532.97**	**535.72**	**534.43**	**529.11**	**524.35**	**513.53**	**490.45**	**5.87**	**4.22**	**3.48**	**2.40**	**1.85**	**0.01**	**0.01**	**0.01**	**0.01**
Total Monthly Emissions (lb/month)	**17,276.33**	**17,704.49**	**17,551.62**	**17,614.85**	**17,510.81**	**17,388.41**	**12,917.13**	**12,668.42**	**11,977.62**	**655.17**	**445.09**	**80.21**	**55.57**	**42.93**	**0.73**	**0.73**	**0.57**	**0.57**
Total Daily Emissions (lb/day)	**751.14**	**769.76**	**763.11**	**765.86**	**761.34**	**756.02**	**561.61**	**550.80**	**520.77**	**28.49**	**19.35**	**3.49**	**2.42**	**1.87**	**0.03**	**0.03**	**0.02**	**0.02**
Rolling 12 Month Total (Tons)	**90.51**	**98.23**	**100.33**	**102.02**	**102.90**	**103.73**	**101.86**	**99.86**	**96.70**	**88.41**	**80.31**	**71.90**	**63.28**	**54.45**	**45.68**	**36.87**	**28.12**	**19.42**
Total Project Emissions (tons)																		
Average Daily Emissions (lb/day) [b, c]																		

VOC Emissions

Emission Source	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Construction Equipment																		
Total (lb/month)	192.17	197.57	186.45	186.45	184.83	184.83	79.53	79.53	76.02	56.93	53.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (lb/day)	8.36	8.59	8.11	8.11	8.04	8.04	3.46	3.46	3.31	2.48	2.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Construction Equipment																		
Total (lb/month)	1,381.37	1,381.37	1,383.47	1,383.47	1,383.47	1,383.47	1,383.47	1,383.47	1,381.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (lb/day)	60.06	60.06	60.15	60.15	60.15	60.15	60.15	60.15	60.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Construction Vehicle																		
Total (lb/month)	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (lb/day) [a]	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
Onsite Construction Vehicle Idle Emissions																		
Total (lb/month)	0.05	0.05	0.05	0.05	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.02	0.02
Total (lb/day) [a]	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
Onsite Paving																		
Total (lb/month)	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
Total (lb/day)	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
Offsite Paving																		
Total (lb/month)	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
Total (lb/day)	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
Onroad Construction Vehicle																		
Total (lb/month)	14.60	16.82	16.95	17.90	17.41	15.56	13.90	10.15	4.48	2.04	1.47	1.22	0.87	0.68	0.04	0.04	0.03	0.03
Total (lb/day) [a]	0.63	0.73	0.74	0.78	0.76	0.68	0.60	0.44	0.19	0.09	0.06	0.05	0.04	0.03	0.00	0.00	0.00	0.00
Total Project VOC Emissions (Construction Equipment, Paving, and V																		
Total Onsite Monthly Emissions (lb/month)	**192.28**	**197.68**	**186.55**	**186.55**	**184.91**	**184.90**	**79.60**	**79.60**	**76.09**	**56.99**	**53.21**	**0.00**	**0.03**	**0.03**	**0.03**	**0.03**	**0.02**	**0.02**
Total Onsite Daily Emissions (lb/day)	**8.36**	**8.59**	**8.11**	**8.11**	**8.04**	**8.04**	**3.46**	**3.46**	**3.31**	**2.48**	**2.31**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Offsite Monthly Emissions (lb/month)	**1,395.96**	**1,398.19**	**1,400.42**	**1,401.37**	**1,400.89**	**1,399.03**	**1,397.38**	**1,393.62**	**1,385.85**	**2.04**	**1.47**	**1.22**	**0.87**	**0.68**	**0.04**	**0.04**	**0.03**	**0.03**
Total Offsite Daily Emissions (lb/day)	**60.69**	**60.79**	**60.89**	**60.93**	**60.91**	**60.83**	**60.76**	**60.59**	**60.25**	**0.09**	**0.06**	**0.05**	**0.04**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**
Total Monthly Emissions (lb/month)	**1,588.24**	**1,595.87**	**1,586.97**	**1,587.93**	**1,585.79**	**1,583.93**	**1,476.98**	**1,473.22**	**1,461.94**	**59.04**	**54.68**	**1.22**	**0.90**	**0.71**	**0.07**	**0.07**	**0.06**	**0.06**
Total Daily Emissions (lb/day)	**69.05**	**69.39**	**69.00**	**69.04**	**68.95**	**68.87**	**64.22**	**64.05**	**63.56**	**2.57**	**2.38**	**0.05**	**0.04**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**
Rolling 12 Month Total (Tons)	**8.78**	**9.52**	**9.57**	**9.60**	**9.62**	**9.64**	**9.59**	**9.54**	**9.37**	**8.58**	**7.82**	**7.03**	**6.23**	**5.44**	**4.64**	**3.85**	**3.06**	**2.26**
Total Project Emissions (tons)																		
Average Daily Emissions (lb/day) [b, c]																		

BHE Renewables

Morton Bay Construction Emissions

Construction Emissions Summary by Source Category

April 2023

SO_x Emissions

Emission Source	SO_x Emissions by Month																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Construction Equipment																		
Total (lb/month)	0.00	0.00	0.00	4.68	6.26	7.15	8.12	4.56	4.86	6.13	8.76	8.76	10.10	10.10	14.59	10.35	10.10	10.23
Total (lb/day)	0.00	0.00	0.00	0.20	0.27	0.31	0.35	0.20	0.21	0.27	0.38	0.38	0.44	0.44	0.63	0.45	0.44	0.44
Offsite Construction Equipment																		
Total (lb/month)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.37	28.57	28.57	28.57	28.57	28.57	29.17	29.17	28.57	28.57
Total (lb/day)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.23	1.24	1.24	1.24	1.24	1.24	1.27	1.27	1.24	1.24
Onsite Construction Vehicle																		
Total (lb/month)	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
Total (lb/day) [a]	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
Onsite Construction Vehicle Idle Emissions																		
Total (lb/month)	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
Total (lb/day) [a]	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
Onroad Construction Vehicle																		
Total (lb/month)	0.00	0.00	0.01	0.07	0.11	0.27	0.39	0.43	0.56	0.64	0.81	0.82	1.09	1.18	1.07	1.03	1.10	1.33
Total (lb/day) [a]	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.02	0.03	0.04	0.04	0.05	0.05	0.05	0.04	0.05	0.06
Total Project SO_x Emissions (Construction Equipment and Vehicles)																		
Total Onsite Monthly Emissions (lb/month)	**0.00**	**0.00**	**0.00**	**4.68**	**6.26**	**7.15**	**8.12**	**4.56**	**4.87**	**6.14**	**8.77**	**8.77**	**10.10**	**10.10**	**14.60**	**10.36**	**10.10**	**10.24**
Total Onsite Daily Emissions (lb/day)	**0.00**	**0.00**	**0.00**	**0.20**	**0.27**	**0.31**	**0.35**	**0.20**	**0.21**	**0.27**	**0.38**	**0.38**	**0.44**	**0.44**	**0.63**	**0.45**	**0.44**	**0.45**
Total Offsite Monthly Emissions (lb/month)	**0.00**	**0.00**	**0.01**	**0.07**	**0.11**	**0.27**	**0.39**	**0.43**	**28.92**	**29.21**	**29.38**	**29.38**	**29.66**	**29.75**	**30.24**	**30.21**	**29.67**	**29.90**
Total Offsite Daily Emissions (lb/day)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**0.02**	**0.02**	**1.26**	**1.27**	**1.28**	**1.28**	**1.29**	**1.29**	**1.31**	**1.31**	**1.29**	**1.30**
Total Monthly Emissions (lb/month)	**0.00**	**0.01**	**0.01**	**4.75**	**6.37**	**7.42**	**8.51**	**4.99**	**33.79**	**35.35**	**38.14**	**38.15**	**39.76**	**39.85**	**44.84**	**40.57**	**39.77**	**40.14**
Total Daily Emissions (lb/day)	**0.00**	**0.00**	**0.00**	**0.21**	**0.28**	**0.32**	**0.37**	**0.22**	**1.47**	**1.54**	**1.66**	**1.66**	**1.73**	**1.73**	**1.95**	**1.76**	**1.73**	**1.75**
Rolling 12 Month Total (Tons)												**0.09**	**0.11**	**0.13**	**0.15**	**0.17**	**0.19**	**0.20**
Total Project Emissions (tons)	**0.38**																	
Average Daily Emissions (lb/day) [b, c]	**1.15**																	

NO_x Emissions

Emission Source	NO_x Emissions by Month																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Construction Equipment																		
Total (lb/month)	0.00	0.00	0.00	814.56	1,181.75	1,263.62	1,585.71	886.78	1,002.24	1,153.84	1,294.15	1,294.15	1,786.99	1,786.99	2,905.31	1,830.98	1,786.99	1,836.52
Total (lb/day)	0.00	0.00	0.00	35.42	51.38	54.94	68.94	38.56	43.58	50.17	56.27	56.27	77.70	77.70	126.32	79.61	77.70	79.85
Offsite Construction Equipment																		
Total (lb/month)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,191.23	2,202.18	2,202.18	2,202.18	2,202.18	2,202.18	2,306.45	2,306.45	2,202.18	2,202.18
Total (lb/day)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	95.27	95.75	95.75	95.75	95.75	95.75	100.28	100.28	95.75	95.75
Onsite Construction Vehicle																		
Total (lb/month)	0.00	0.00	0.00	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
Total (lb/day) [a]	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
Onsite Construction Vehicle Idle Emissions																		
Total (lb/month)	0.04	0.07	0.14	0.22	0.38	0.38	0.42	0.57	0.68	0.68	0.86	1.02	1.24	1.32	1.31	1.28	1.21	1.01
Total (lb/day) [a]	0.00	0.00	0.01	0.01	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.04	0.05	0.06	0.06	0.06	0.05	0.04
Onroad Construction Vehicle																		
Total (lb/month)	0.31	0.48	1.06	3.69	6.12	12.77	18.17	20.61	26.23	29.81	37.55	39.07	51.96	57.26	52.66	50.21	52.28	60.39
Total (lb/day) [a]	0.01	0.02	0.05	0.16	0.27	0.56	0.79	0.90	1.14	1.30	1.63	1.70	2.26	2.49	2.29	2.18	2.27	2.63
Total Project NO_x Emissions (Construction Equipment and Vehicles)																		
Total Onsite Monthly Emissions (lb/month)	**0.04**	**0.07**	**0.14**	**814.88**	**1,182.23**	**1,264.10**	**1,586.23**	**887.46**	**1,003.02**	**1,154.62**	**1,295.11**	**1,295.28**	**1,788.34**	**1,788.42**	**2,906.73**	**1,832.37**	**1,788.31**	**1,837.64**
Total Onsite Daily Emissions (lb/day)	**0.00**	**0.00**	**0.01**	**35.43**	**51.40**	**54.96**	**68.97**	**38.59**	**43.61**	**50.20**	**56.31**	**56.32**	**77.75**	**77.76**	**126.38**	**79.67**	**77.75**	**79.90**
Total Offsite Monthly Emissions (lb/month)	**0.31**	**0.48**	**1.06**	**3.69**	**6.12**	**12.77**	**18.17**	**20.61**	**2,217.47**	**2,231.99**	**2,239.73**	**2,241.25**	**2,254.14**	**2,259.43**	**2,359.11**	**2,356.66**	**2,254.46**	**2,262.57**
Total Offsite Daily Emissions (lb/day)	**0.01**	**0.02**	**0.05**	**0.16**	**0.27**	**0.56**	**0.79**	**0.90**	**96.41**	**97.04**	**97.38**	**97.45**	**98.01**	**98.24**	**102.57**	**102.46**	**98.02**	**98.37**
Total Monthly Emissions (lb/month)	**0.35**	**0.55**	**1.21**	**818.57**	**1,188.36**	**1,276.87**	**1,604.40**	**908.07**	**3,220.49**	**3,386.61**	**3,534.84**	**3,536.53**	**4,042.48**	**4,047.86**	**5,265.84**	**4,189.03**	**4,042.77**	**4,100.21**
Total Daily Emissions (lb/day)	**0.02**	**0.02**	**0.05**	**35.59**	**51.67**	**55.52**	**69.76**	**39.48**	**140.02**	**147.24**	**153.69**	**153.76**	**175.76**	**175.99**	**228.95**	**182.13**	**175.77**	**178.27**
Rolling 12 Month Total (Tons)												**9.74**	**11.76**	**13.78**	**16.42**	**18.10**	**19.53**	**20.94**
Total Project Emissions (tons)	**39.83**																	
Average Daily Emissions (lb/day) [b, c]	**119.42**																	

BHE Renewables

Morton Bay Construction Emissions

Construction Emissions Summary by Source Category

April 2023

SO_x Emissions

Emission Source	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Construction Equipment																		
Total (lb/month)	10.76	11.28	10.66	10.66	10.53	10.53	2.41	2.41	2.13	1.72	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (lb/day)	0.47	0.49	0.46	0.46	0.46	0.46	0.10	0.10	0.09	0.07	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Construction Equipment																		
Total (lb/month)	28.57	28.57	28.77	28.77	28.77	28.77	28.77	28.77	28.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (lb/day)	1.24	1.24	1.25	1.25	1.25	1.25	1.25	1.25	1.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Construction Vehicle																		
Total (lb/month)	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
Total (lb/day) [a]	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
Onsite Construction Vehicle Idle Emissions																		
Total (lb/month)	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
Total (lb/day) [a]	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
Onroad Construction Vehicle																		
Total (lb/month)	1.45	1.67	1.68	1.77	1.69	1.51	1.35	0.99	0.45	0.20	0.15	0.12	0.12	0.10	0.04	0.04	0.03	0.03
Total (lb/day) [a]	0.06	0.07	0.07	0.08	0.07	0.07	0.06	0.04	0.02	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
Total Project SO_x Emissions (Construction Equipment and Vehicles)																		
Total Onsite Monthly Emissions (lb/month)	**10.76**	**11.29**	**10.67**	**10.67**	**10.54**	**10.54**	**2.42**	**2.42**	**2.13**	**1.72**	**1.42**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Onsite Daily Emissions (lb/day)	**0.47**	**0.49**	**0.46**	**0.46**	**0.46**	**0.46**	**0.11**	**0.11**	**0.09**	**0.07**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Offsite Monthly Emissions (lb/month)	**30.02**	**30.24**	**30.45**	**30.54**	**30.46**	**30.28**	**30.12**	**29.76**	**29.02**	**0.20**	**0.15**	**0.12**	**0.12**	**0.10**	**0.04**	**0.04**	**0.03**	**0.03**
Total Offsite Daily Emissions (lb/day)	**1.31**	**1.31**	**1.32**	**1.33**	**1.32**	**1.32**	**1.31**	**1.29**	**1.26**	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Monthly Emissions (lb/month)	**40.78**	**41.52**	**41.12**	**41.21**	**41.00**	**40.81**	**32.53**	**32.18**	**31.14**	**1.92**	**1.56**	**0.12**	**0.12**	**0.10**	**0.04**	**0.04**	**0.03**	**0.03**
Total Daily Emissions (lb/day)	**1.77**	**1.81**	**1.79**	**1.79**	**1.78**	**1.77**	**1.41**	**1.40**	**1.35**	**0.08**	**0.07**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Rolling 12 Month Total (Tons)	**0.22**	**0.24**	**0.24**	**0.24**	**0.24**	**0.25**	**0.24**	**0.24**	**0.23**	**0.21**	**0.19**	**0.17**	**0.15**	**0.13**	**0.11**	**0.09**	**0.07**	**0.05**
Total Project Emissions (tons)																		
Average Daily Emissions (lb/day) [b, c]																		

NO_x Emissions

Emission Source	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Construction Equipment																		
Total (lb/month)	1,864.58	1,892.65	1,821.22	1,821.22	1,771.69	1,771.69	776.38	776.38	669.12	473.57	358.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (lb/day)	81.07	82.29	79.18	79.18	77.03	77.03	33.76	33.76	29.09	20.59	15.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Construction Equipment																		
Total (lb/month)	2,202.18	2,202.18	2,213.12	2,213.12	2,213.12	2,213.12	2,213.12	2,213.12	2,202.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (lb/day)	95.75	95.75	96.22	96.22	96.22	96.22	96.22	96.22	95.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Construction Vehicle																		
Total (lb/month)	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (lb/day) [a]	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
Onsite Construction Vehicle Idle Emissions																		
Total (lb/month)	0.91	0.91	0.85	0.85	0.39	0.29	0.29	0.29	0.29	0.08	0.08	0.08	0.52	0.52	0.49	0.49	0.39	0.39
Total (lb/day) [a]	0.04	0.04	0.04	0.04	0.02	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	0.02
Onroad Construction Vehicle																		
Total (lb/month)	64.99	73.93	74.06	77.89	72.66	64.48	57.83	42.76	20.01	8.76	6.46	5.43	7.19	6.42	3.63	3.63	2.86	2.86
Total (lb/day) [a]	2.83	3.21	3.22	3.39	3.16	2.80	2.51	1.86	0.87	0.38	0.28	0.24	0.31	0.28	0.16	0.16	0.12	0.12
Total Project NO_x Emissions (Construction Equipment and Vehicles)																		
Total Onsite Monthly Emissions (lb/month)	**1,865.60**	**1,893.66**	**1,822.18**	**1,822.18**	**1,772.19**	**1,772.09**	**776.77**	**776.77**	**669.52**	**473.75**	**358.29**	**0.08**	**0.52**	**0.52**	**0.49**	**0.49**	**0.39**	**0.39**
Total Onsite Daily Emissions (lb/day)	**81.11**	**82.33**	**79.23**	**79.23**	**77.05**	**77.05**	**33.77**	**33.77**	**29.11**	**20.60**	**15.58**	**0.00**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**
Total Offsite Monthly Emissions (lb/month)	**2,267.16**	**2,276.11**	**2,287.17**	**2,291.01**	**2,285.78**	**2,277.59**	**2,270.95**	**2,255.87**	**2,222.19**	**8.76**	**6.46**	**5.43**	**7.19**	**6.42**	**3.63**	**3.63**	**2.86**	**2.86**
Total Offsite Daily Emissions (lb/day)	**98.57**	**98.96**	**99.44**	**99.61**	**99.38**	**99.03**	**98.74**	**98.08**	**96.62**	**0.38**	**0.28**	**0.24**	**0.31**	**0.28**	**0.16**	**0.16**	**0.12**	**0.12**
Total Monthly Emissions (lb/month)	**4,132.76**	**4,169.77**	**4,109.36**	**4,113.19**	**4,057.97**	**4,049.68**	**3,047.72**	**3,032.65**	**2,891.71**	**482.51**	**364.75**	**5.51**	**7.71**	**6.94**	**4.12**	**4.12**	**3.25**	**3.25**
Total Daily Emissions (lb/day)	**179.69**	**181.29**	**178.67**	**178.83**	**176.43**	**176.07**	**132.51**	**131.85**	**125.73**	**20.98**	**15.86**	**0.24**	**0.34**	**0.30**	**0.18**	**0.18**	**0.14**	**0.14**
Rolling 12 Month Total (Tons)	**22.20**	**23.83**	**24.28**	**24.64**	**24.90**	**25.16**	**24.66**	**24.16**	**22.97**	**21.12**	**19.28**	**17.23**	**15.17**	**13.08**	**11.03**	**8.98**	**6.95**	**4.93**
Total Project Emissions (tons)																		
Average Daily Emissions (lb/day) [b, c]																		

BHE Renewables

Morton Bay Construction Emissions

Construction Emissions Summary by Source Category

April 2023

PM_{10} Emissions

Emission Source	PM_{10} Emissions by Month																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Construction Equipment																		
Total (lb/month)	0.00	0.00	0.00	29.46	42.65	44.47	58.11	25.53	25.95	30.18	35.57	35.57	42.84	42.84	81.86	43.35	42.84	43.02
Total (lb/day)	0.00	0.00	0.00	1.28	1.85	1.93	2.53	1.11	1.13	1.31	1.55	1.55	1.86	1.86	3.56	1.88	1.86	1.87
Offsite Construction Equipment																		
Total (lb/month)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	509.44	509.86	509.86	509.86	509.86	509.86	511.06	511.06	509.86	509.86
Total (lb/day)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.15	22.17	22.17	22.17	22.17	22.17	22.22	22.22	22.17	22.17
Onsite Construction Vehicle																		
Total (lb/month)	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total (lb/day) [a]	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
Onsite Fugitive Dust																		
Total (lb/month)	0.00	0.00	0.00	133.47	133.47	118.36	118.36	86.86	86.86	86.86	86.86	86.86	86.86	86.86	86.86	86.86	86.86	86.86
Total (lb/day)	0.00	0.00	0.00	5.80	5.80	5.15	5.15	3.78	3.78	3.78	3.78	3.78	3.78	3.78	3.78	3.78	3.78	3.78
Onsite Construction Vehicle Idle Emissions																		
Total (lb/month)	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
Total (lb/day) [a]	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
Onroad Construction Vehicle																		
Total (lb/month)	0.10	0.16	0.36	5.50	8.99	25.08	37.55	41.03	53.05	61.72	77.64	77.07	103.25	109.25	98.65	96.25	104.42	130.62
Total (lb/day) [a]	0.00	0.01	0.02	0.24	0.39	1.09	1.63	1.78	2.31	2.68	3.38	3.35	4.49	4.75	4.29	4.18	4.54	5.68
Total Project PM_{10} Emissions (Construction Equipment, Fugitive Dust																		
Total Onsite Monthly Emissions (lb/month)	**0.00**	**0.00**	**0.00**	**162.94**	**176.13**	**162.83**	**176.48**	**112.39**	**112.81**	**117.04**	**122.44**	**122.44**	**129.71**	**129.70**	**168.73**	**130.21**	**129.71**	**129.88**
Total Onsite Monthly Emissions Without Fugitive Dust (lb/month)	**0.00**	**0.00**	**0.00**	**29.47**	**42.66**	**44.48**	**58.12**	**25.54**	**25.96**	**30.19**	**35.58**	**35.59**	**42.85**	**42.85**	**81.87**	**43.36**	**42.85**	**43.03**
Total Onsite Daily Emissions (lb/day)	**0.00**	**0.00**	**0.00**	**7.08**	**7.66**	**7.08**	**7.67**	**4.89**	**4.90**	**5.09**	**5.32**	**5.32**	**5.64**	**5.64**	**7.34**	**5.66**	**5.64**	**5.65**
Total Onsite Daily Emissions (lb/day) Without Fugitive Dust	**0.00**	**0.00**	**0.00**	**1.28**	**1.85**	**1.93**	**2.53**	**1.11**	**1.13**	**1.31**	**1.55**	**1.55**	**1.86**	**1.86**	**3.56**	**1.89**	**1.86**	**1.87**
Total Offsite Monthly Emissions (lb/month)	**0.10**	**0.16**	**0.36**	**5.50**	**8.99**	**25.08**	**37.55**	**41.03**	**562.49**	**571.57**	**587.50**	**586.93**	**613.10**	**619.11**	**609.71**	**607.31**	**614.28**	**640.48**
Total Offsite Daily Emissions (lb/day)	**0.00**	**0.01**	**0.02**	**0.24**	**0.39**	**1.09**	**1.63**	**1.78**	**24.46**	**24.85**	**25.54**	**25.52**	**26.66**	**26.92**	**26.51**	**26.40**	**26.71**	**27.85**
Total Monthly Emissions (lb/month)	**0.10**	**0.16**	**0.36**	**168.44**	**185.12**	**187.91**	**214.03**	**153.43**	**675.30**	**688.62**	**709.94**	**709.37**	**742.81**	**748.81**	**778.44**	**737.53**	**743.98**	**770.36**
Total Daily Emissions (lb/day)	**0.00**	**0.01**	**0.02**	**7.32**	**8.05**	**8.17**	**9.31**	**6.67**	**29.36**	**29.94**	**30.87**	**30.84**	**32.30**	**32.56**	**33.85**	**32.07**	**32.35**	**33.49**
Rolling 12 Month Total (Tons)												**1.85**	**2.22**	**2.59**	**2.98**	**3.27**	**3.55**	**3.84**
Total Project Emissions (tons)	**7.71**																	
Average Daily Emissions (lb/day) [b, c]	**23.12**																	

$PM_{2.5}$ Emissions

Emission Source	$PM_{2.5}$ Emissions by Month																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Construction Equipment																		
Total (lb/month)	0.00	0.00	0.00	27.40	39.56	41.39	53.93	23.91	24.33	28.41	33.81	33.81	40.62	40.62	76.56	41.13	40.62	40.80
Total (lb/day)	0.00	0.00	0.00	1.19	1.72	1.80	2.34	1.04	1.06	1.24	1.47	1.47	1.77	1.77	3.33	1.79	1.77	1.77
Offsite Construction Equipment																		
Total (lb/month)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	509.44	509.86	509.86	509.86	509.86	509.86	511.06	511.06	509.86	509.86
Total (lb/day)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.15	22.17	22.17	22.17	22.17	22.17	22.22	22.22	22.17	22.17
Onsite Construction Vehicle																		
Total (lb/month)	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total (lb/day) [a]	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
Onsite Fugitive Dust																		
Total (lb/month)	0.00	0.00	0.00	15.05	15.05	13.42	13.42	8.65	8.65	8.65	8.65	8.65	8.65	8.65	8.65	8.65	8.65	8.65
Total (lb/day)	0.00	0.00	0.00	0.65	0.65	0.58	0.58	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38
Onsite Construction Vehicle Idle Emissions																		
Total (lb/month)	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
Total (lb/day) [a]	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
Onroad Construction Vehicle																		
Total (lb/month)	0.03	0.05	0.10	1.44	2.35	6.50	9.72	10.63	13.74	15.97	20.09	19.97	26.74	28.33	25.59	24.95	27.05	33.77
Total (lb/day) [a]	0.00	0.00	0.00	0.06	0.10	0.28	0.42	0.46	0.60	0.69	0.87	0.87	1.16	1.23	1.11	1.08	1.18	1.47
Total Project $PM_{2.5}$ Emissions (Construction Equipment, Fugitive Dus																		
Total Onsite Monthly Emissions (lb/month)	**0.00**	**0.00**	**0.00**	**42.46**	**54.62**	**54.81**	**67.36**	**32.57**	**32.99**	**37.07**	**42.46**	**42.46**	**49.28**	**49.28**	**85.22**	**49.78**	**49.28**	**49.46**
Total Onsite Monthly Emissions Without Fugitive Dust (lb/month)	**0.00**	**0.00**	**0.00**	**27.41**	**39.57**	**41.39**	**53.94**	**23.92**	**24.34**	**28.42**	**33.81**	**33.81**	**40.62**	**40.62**	**76.57**	**41.13**	**40.62**	**40.80**
Total Onsite Daily Emissions (lb/day)	**0.00**	**0.00**	**0.00**	**1.85**	**2.37**	**2.38**	**2.93**	**1.42**	**1.43**	**1.61**	**1.85**	**1.85**	**2.14**	**2.14**	**3.71**	**2.16**	**2.14**	**2.15**
Total Onsite Daily Emissions Without Fugitive Dust (lb/day)	**0.00**	**0.00**	**0.00**	**1.19**	**1.72**	**1.80**	**2.35**	**1.04**	**1.06**	**1.24**	**1.47**	**1.47**	**1.77**	**1.77**	**3.33**	**1.79**	**1.77**	**1.77**
Total Offsite Monthly Emissions (lb/month)	**0.03**	**0.05**	**0.10**	**1.44**	**2.35**	**6.50**	**9.72**	**10.63**	**523.17**	**525.83**	**529.95**	**529.82**	**536.60**	**538.19**	**536.66**	**536.02**	**536.90**	**543.63**
Total Offsite Daily Emissions (lb/day)	**0.00**	**0.00**	**0.00**	**0.06**	**0.10**	**0.28**	**0.42**	**0.46**	**22.75**	**22.86**	**23.04**	**23.04**	**23.33**	**23.40**	**23.33**	**23.31**	**23.34**	**23.64**
Total Monthly Emissions (lb/month)	**0.03**	**0.05**	**0.10**	**43.90**	**56.97**	**61.31**	**77.07**	**43.20**	**556.16**	**562.89**	**572.41**	**572.29**	**585.88**	**587.46**	**621.87**	**585.80**	**586.18**	**593.08**
Total Daily Emissions (lb/day)	**0.00**	**0.00**	**0.00**	**1.91**	**2.48**	**2.67**	**3.35**	**1.88**	**24.18**	**24.47**	**24.89**	**24.88**	**25.47**	**25.54**	**27.04**	**25.47**	**25.49**	**25.79**
Rolling 12 Month Total (Tons)												**1.27**	**1.57**	**1.86**	**2.17**	**2.44**	**2.71**	**2.97**
Total Project Emissions (tons)	**5.73**																	
Average Daily Emissions (lb/day) [b, c]	**17.18**																	

BHE Renewables

Morton Bay Construction Emissions

Construction Emissions Summary by Source Category

April 2023

PM_{10} Emissions

Emission Source	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Construction Equipment																		
Total (lb/month)	44.10	45.18	42.40	42.40	42.22	42.22	19.53	19.53	19.14	13.26	12.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (lb/day)	1.92	1.96	1.84	1.84	1.84	1.84	0.85	0.85	0.83	0.58	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Construction Equipment																		
Total (lb/month)	509.86	509.86	510.28	510.28	510.28	510.28	510.28	510.28	509.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (lb/day)	22.17	22.17	22.19	22.19	22.19	22.19	22.19	22.19	22.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Construction Vehicle																		
Total (lb/month)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (lb/day) [a]	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
Onsite Fugitive Dust																		
Total (lb/month)	86.86	86.86	86.86	86.86	86.86	86.86	86.86	86.86	86.86	86.86	86.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (lb/day)	3.78	3.78	3.78	3.78	3.78	3.78	3.78	3.78	3.78	3.78	3.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Construction Vehicle Idle Emissions																		
Total (lb/month)	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
Total (lb/day) [a]	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
Onroad Construction Vehicle																		
Total (lb/month)	143.36	165.02	166.12	175.41	169.92	151.71	135.62	99.11	44.03	20.00	14.43	11.95	9.34	7.49	1.22	1.22	0.96	0.96
Total (lb/day) [a]	6.23	7.17	7.22	7.63	7.39	6.60	5.90	4.31	1.91	0.87	0.63	0.52	0.41	0.33	0.05	0.05	0.04	0.04
Total Project PM_{10} Emissions (Construction Equipment, Fugitive Dust																		
Total Onsite Monthly Emissions (lb/month)	**130.96**	**132.04**	**129.27**	**129.27**	**129.09**	**129.09**	**106.40**	**106.40**	**106.01**	**100.12**	**99.70**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Onsite Monthly Emissions Without Fugitive Dust (lb/month)	**44.11**	**45.19**	**42.41**	**42.41**	**42.23**	**42.23**	**19.54**	**19.54**	**19.15**	**13.27**	**12.85**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Onsite Daily Emissions (lb/day)	**5.69**	**5.74**	**5.62**	**5.62**	**5.61**	**5.61**	**4.63**	**4.63**	**4.61**	**4.35**	**4.33**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Onsite Daily Emissions (lb/day) Without Fugitive Dust	**1.92**	**1.96**	**1.84**	**1.84**	**1.84**	**1.84**	**0.85**	**0.85**	**0.83**	**0.58**	**0.56**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Offsite Monthly Emissions (lb/month)	**653.21**	**674.87**	**676.40**	**685.68**	**680.20**	**661.99**	**645.90**	**609.39**	**553.89**	**20.00**	**14.43**	**11.95**	**9.34**	**7.49**	**1.22**	**1.22**	**0.96**	**0.96**
Total Offsite Daily Emissions (lb/day)	**28.40**	**29.34**	**29.41**	**29.81**	**29.57**	**28.78**	**28.08**	**26.50**	**24.08**	**0.87**	**0.63**	**0.52**	**0.41**	**0.33**	**0.05**	**0.05**	**0.04**	**0.04**
Total Monthly Emissions (lb/month)	**784.18**	**806.92**	**805.67**	**814.95**	**809.29**	**791.08**	**752.30**	**715.78**	**659.90**	**120.12**	**114.13**	**11.95**	**9.34**	**7.49**	**1.22**	**1.22**	**0.96**	**0.96**
Total Daily Emissions (lb/day)	**34.09**	**35.08**	**35.03**	**35.43**	**35.19**	**34.39**	**32.71**	**31.12**	**28.69**	**5.22**	**4.96**	**0.52**	**0.41**	**0.33**	**0.05**	**0.05**	**0.04**	**0.04**
Rolling 12 Month Total (Tons)	**4.12**	**4.45**	**4.51**	**4.58**	**4.63**	**4.67**	**4.67**	**4.66**	**4.60**	**4.29**	**3.97**	**3.59**	**3.21**	**2.81**	**2.40**	**2.00**	**1.59**	**1.20**
Total Project Emissions (tons)																		
Average Daily Emissions (lb/day) [b, c]																		

$PM_{2.5}$ Emissions

Emission Source	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Construction Equipment																		
Total (lb/month)	41.88	42.96	40.32	40.32	40.14	40.14	18.05	18.05	17.66	12.23	11.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (lb/day)	1.82	1.87	1.75	1.75	1.75	1.75	0.78	0.78	0.77	0.53	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Construction Equipment																		
Total (lb/month)	509.86	509.86	510.28	510.28	510.28	510.28	510.28	510.28	509.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (lb/day)	22.17	22.17	22.19	22.19	22.19	22.19	22.19	22.19	22.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Construction Vehicle																		
Total (lb/month)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (lb/day) [a]	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
Onsite Fugitive Dust																		
Total (lb/month)	8.65	8.65	8.65	8.65	8.65	8.65	8.65	8.65	8.65	8.65	8.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (lb/day)	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Construction Vehicle Idle Emissions																		
Total (lb/month)	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
Total (lb/day) [a]	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
Onroad Construction Vehicle																		
Total (lb/month)	37.05	42.64	42.92	45.32	43.87	39.16	35.01	25.59	11.38	5.16	3.73	3.09	2.45	1.97	0.35	0.35	0.28	0.28
Total (lb/day) [a]	1.61	1.85	1.87	1.97	1.91	1.70	1.52	1.11	0.49	0.22	0.16	0.13	0.11	0.09	0.02	0.02	0.01	0.01
Total Project $PM_{2.5}$ Emissions (Construction Equipment, Fugitive Dus																		
Total Onsite Monthly Emissions (lb/month)	**50.53**	**51.61**	**48.98**	**48.98**	**48.80**	**48.79**	**26.71**	**26.71**	**26.32**	**20.89**	**20.47**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Onsite Monthly Emissions Without Fugitive Dust (lb/month)	**41.88**	**42.96**	**40.32**	**40.32**	**40.14**	**40.14**	**18.06**	**18.06**	**17.67**	**12.24**	**11.82**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Onsite Daily Emissions (lb/day)	**2.20**	**2.24**	**2.13**	**2.13**	**2.12**	**2.12**	**1.16**	**1.16**	**1.14**	**0.91**	**0.89**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Onsite Daily Emissions Without Fugitive Dust (lb/day)	**1.82**	**1.87**	**1.75**	**1.75**	**1.75**	**1.75**	**0.79**	**0.79**	**0.77**	**0.53**	**0.51**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Offsite Monthly Emissions (lb/month)	**546.91**	**552.49**	**553.20**	**555.59**	**554.14**	**549.44**	**545.29**	**535.87**	**521.24**	**5.16**	**3.73**	**3.09**	**2.45**	**1.97**	**0.35**	**0.35**	**0.28**	**0.28**
Total Offsite Daily Emissions (lb/day)	**23.78**	**24.02**	**24.05**	**24.16**	**24.09**	**23.89**	**23.71**	**23.30**	**22.66**	**0.22**	**0.16**	**0.13**	**0.11**	**0.09**	**0.02**	**0.02**	**0.01**	**0.01**
Total Monthly Emissions (lb/month)	**597.44**	**604.11**	**602.17**	**604.57**	**602.94**	**598.23**	**571.99**	**562.57**	**547.55**	**26.05**	**24.20**	**3.09**	**2.45**	**1.97**	**0.35**	**0.35**	**0.28**	**0.28**
Total Daily Emissions (lb/day)	**25.98**	**26.27**	**26.18**	**26.29**	**26.21**	**26.01**	**24.87**	**24.46**	**23.81**	**1.13**	**1.05**	**0.13**	**0.11**	**0.09**	**0.02**	**0.02**	**0.01**	**0.01**
Rolling 12 Month Total (Tons)	**3.23**	**3.51**	**3.54**	**3.56**	**3.57**	**3.58**	**3.58**	**3.57**	**3.53**	**3.25**	**2.97**	**2.67**	**2.37**	**2.07**	**1.77**	**1.47**	**1.17**	**0.87**
Total Project Emissions (tons)																		
Average Daily Emissions (lb/day) [b, c]																		

BHE Renewables

Morton Bay Construction Emissions

Construction Emissions Summary by Source Category

April 2023

CO_2 Emissions

Emission Source	CO_2 Emissions by Month																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Construction Equipment																		
Total (metric tons/month)	0.00	0.00	0.00	229.75	307.50	351.01	392.83	209.13	219.95	278.95	408.09	408.09	456.63	456.63	677.29	469.17	456.63	461.28
Total (metric tons/day)	0.00	0.00	0.00	9.99	13.37	15.26	17.08	9.09	9.56	12.13	17.74	17.74	19.85	19.85	29.45	20.40	19.85	20.06
Offsite Construction Equipment																		
Total (metric tons/month)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,019.33	1,029.29	1,029.29	1,029.29	1,029.29	1,029.29	1,059.00	1,059.00	1,029.29	1,029.29
Total (metric tons/day)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	44.32	44.75	44.75	44.75	44.75	44.75	46.04	46.04	44.75	44.75
Onsite Construction Vehicle																		
Total (metric tons/month)	0.00	0.00	0.00	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Total (metric tons/day) [a]	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Onsite Construction Vehicle Idle Emissions																		
Total (metric tons/month)	0.00	0.01	0.01	0.02	0.03	0.03	0.03	0.05	0.05	0.05	0.07	0.08	0.10	0.11	0.11	0.10	0.10	0.08
Total (metric tons/day) [a]	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
Onroad Construction Vehicle																		
Total (metric tons/month)	0.15	0.23	0.51	2.98	4.91	12.01	17.62	19.55	25.11	28.94	36.42	36.91	49.34	53.26	48.48	46.75	49.79	60.19
Total (metric tons/day) [a]	0.01	0.01	0.02	0.13	0.21	0.52	0.77	0.85	1.09	1.26	1.58	1.60	2.15	2.32	2.11	2.03	2.16	2.62
Total Project CO_2 Emissions (Construction Equipment and Vehicles)																		
Total Onsite Monthly Emissions (metric tons/month)	**0.00**	**0.01**	**0.01**	**229.90**	**307.66**	**351.17**	**392.99**	**209.30**	**220.13**	**279.14**	**408.29**	**408.30**	**456.86**	**456.87**	**677.53**	**469.40**	**456.86**	**461.49**
Total Onsite Daily Emissions (metric tons/day)	**0.00**	**0.00**	**0.00**	**10.00**	**13.38**	**15.27**	**17.09**	**9.10**	**9.57**	**12.14**	**17.75**	**17.75**	**19.86**	**19.86**	**29.46**	**20.41**	**19.86**	**20.06**
Total Offsite Monthly Emissions (metric tons/month)	**0.15**	**0.23**	**0.51**	**2.98**	**4.91**	**12.01**	**17.62**	**19.55**	**1,044.45**	**1,058.23**	**1,065.71**	**1,066.20**	**1,078.62**	**1,082.55**	**1,107.49**	**1,105.76**	**1,079.08**	**1,089.48**
Total Offsite Daily Emissions (metric tons/day)	**0.01**	**0.01**	**0.02**	**0.13**	**0.21**	**0.52**	**0.77**	**0.85**	**45.41**	**46.01**	**46.34**	**46.36**	**46.90**	**47.07**	**48.15**	**48.08**	**46.92**	**47.37**
Total Monthly Emissions (metric tons/month)	**0.15**	**0.24**	**0.53**	**232.88**	**312.57**	**363.19**	**410.61**	**228.85**	**1,264.58**	**1,337.36**	**1,474.00**	**1,474.50**	**1,535.49**	**1,539.42**	**1,785.01**	**1,575.16**	**1,535.94**	**1,550.97**
Total Daily Emissions (metric tons/day)	**0.01**	**0.01**	**0.02**	**10.13**	**13.59**	**15.79**	**17.85**	**9.95**	**54.98**	**58.15**	**64.09**	**64.11**	**66.76**	**66.93**	**77.61**	**68.49**	**66.78**	**67.43**
Rolling 12 Month Total (Metric Tons)												**7,099.46**	**8,634.79**	**10,173.97**	**11,958.46**	**13,300.74**	**14,524.10**	**15,711.88**
Total Project Emissions (metric tons)	**29,928.13**																	
Average Daily Emissions (metric tons/day) [b, c]	**44.87**																	

N_2O Emissions

Emission Source	N_2O Emissions by Month																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Construction Equipment																		
Total (metric tons/month)	0.00E+00	0.00E+00	0.00E+00	1.86E-03	2.49E-03	2.85E-03	3.19E-03	1.70E-03	1.78E-03	2.26E-03	3.31E-03	3.31E-03	3.70E-03	3.70E-03	5.49E-03	3.81E-03	3.70E-03	3.74E-03
Total (metric tons/day)	0.00E+00	0.00E+00	0.00E+00	8.10E-05	1.08E-04	1.24E-04	1.39E-04	7.38E-05	7.76E-05	9.84E-05	1.44E-04	1.44E-04	1.61E-04	1.61E-04	2.39E-04	1.65E-04	1.61E-04	1.63E-04
Offsite Construction Equipment																		
Total (metric tons/month)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total (metric tons/day)	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
Onsite Construction Vehicle																		
Total (metric tons/month)	0.00E+00	0.00E+00	0.00E+00	2.45E-07	2.45E-07	2.45E-07	2.45E-07	2.45E-07	2.45E-07	2.45E-07	2.45E-07	2.45E-07	2.45E-07	2.45E-07	2.45E-07	2.45E-07	2.45E-07	2.45E-07
Total (metric tons/day) [a]	0.00E+00	0.00E+00	0.00E+00	1.07E-08	1.07E-08	1.07E-08	1.07E-08	1.07E-08	1.07E-08	1.07E-08	1.07E-08	1.07E-08	1.07E-08	1.07E-08	1.07E-08	1.07E-08	1.07E-08	1.07E-08
Onsite Construction Vehicle Idle Emissions																		
Total (metric tons/month)	6.73E-09	1.05E-08	2.32E-08	3.58E-08	6.10E-08	6.10E-08	6.73E-08	9.26E-08	1.09E-07	1.09E-07	1.39E-07	1.72E-07	2.14E-07	2.49E-07	2.46E-07	2.29E-07	2.09E-07	1.63E-07
Total (metric tons/day) [a]	2.93E-10	4.58E-10	1.01E-09	1.56E-09	2.65E-09	2.65E-09	2.93E-09	4.03E-09	4.76E-09	4.76E-09	6.04E-09	7.48E-09	9.28E-09	1.08E-08	1.07E-08	9.95E-09	9.10E-09	7.10E-09
Onroad Construction Vehicle																		
Total (metric tons/month)	2.34E-07	3.65E-07	8.03E-07	9.94E-06	1.62E-05	4.45E-05	6.65E-05	7.28E-05	9.40E-05	1.09E-04	1.37E-04	1.37E-04	1.84E-04	1.97E-04	1.78E-04	1.73E-04	1.86E-04	2.31E-04
Total (metric tons/day) [a]	1.02E-08	1.59E-08	3.49E-08	4.32E-07	7.06E-07	1.93E-06	2.89E-06	3.16E-06	4.09E-06	4.75E-06	5.97E-06	5.97E-06	8.01E-06	8.56E-06	7.74E-06	7.51E-06	8.09E-06	1.00E-05
Total Project N_2O Emissions (Construction Equipment and Vehicles)																		
Total Onsite Monthly Emissions (metric tons/month)	**6.73E-09**	**1.05E-08**	**2.32E-08**	**1.86E-03**	**2.50E-03**	**2.85E-03**	**3.19E-03**	**1.70E-03**	**1.78E-03**	**2.26E-03**	**3.31E-03**	**3.31E-03**	**3.71E-03**	**3.71E-03**	**5.50E-03**	**3.81E-03**	**3.71E-03**	**3.74E-03**
Total Onsite Daily Emissions (metric tons/day)	**2.93E-10**	**4.58E-10**	**1.01E-09**	**8.11E-05**	**1.08E-04**	**1.24E-04**	**1.39E-04**	**7.38E-05**	**7.76E-05**	**9.84E-05**	**1.44E-04**	**1.44E-04**	**1.61E-04**	**1.61E-04**	**2.39E-04**	**1.66E-04**	**1.61E-04**	**1.63E-04**
Total Offsite Monthly Emissions (metric tons/month)	**2.34E-07**	**3.65E-07**	**8.03E-07**	**9.94E-06**	**1.62E-05**	**4.45E-05**	**6.65E-05**	**7.28E-05**	**8.36E-03**	**8.46E-03**	**8.49E-03**	**8.49E-03**	**8.53E-03**	**8.55E-03**	**8.77E-03**	**8.76E-03**	**8.54E-03**	**8.58E-03**
Total Offsite Daily Emissions (metric tons/day)	**1.02E-08**	**1.59E-08**	**3.49E-08**	**4.32E-07**	**7.06E-07**	**1.93E-06**	**2.89E-06**	**3.16E-06**	**3.64E-04**	**3.68E-04**	**3.69E-04**	**3.69E-04**	**3.71E-04**	**3.72E-04**	**3.81E-04**	**3.81E-04**	**3.71E-04**	**3.73E-04**
Total Monthly Emissions (metric tons/month)	**2.40E-07**	**3.76E-07**	**8.26E-07**	**1.87E-03**	**2.51E-03**	**2.89E-03**	**3.25E-03**	**1.77E-03**	**1.01E-02**	**1.07E-02**	**1.18E-02**	**1.18E-02**	**1.22E-02**	**1.23E-02**	**1.43E-02**	**1.26E-02**	**1.22E-02**	**1.23E-02**
Total Daily Emissions (metric tons/day)	**1.05E-08**	**1.63E-08**	**3.59E-08**	**8.15E-05**	**1.09E-04**	**1.26E-04**	**1.41E-04**	**7.69E-05**	**4.41E-04**	**4.66E-04**	**5.13E-04**	**5.13E-04**	**5.32E-04**	**5.33E-04**	**6.20E-04**	**5.47E-04**	**5.32E-04**	**5.36E-04**
Rolling 12 Month Total (Metric Tons)												**0.06**	**0.07**	**0.08**	**0.10**	**0.11**	**0.12**	**0.13**
Total Project Emissions (metric tons)	**2.38E-01**																	
Average Daily Emissions (metric tons/day) [b, c]	**3.57E-04**																	

BHE Renewables

Morton Bay Construction Emissions

Construction Emissions Summary by Source Category

April 2023

CO_2 Emissions

Emission Source	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Construction Equipment																		
Total (metric tons/month)	487.10	512.93	484.40	484.40	479.76	479.76	103.79	103.79	93.73	80.20	69.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (metric tons/day)	21.18	22.30	21.06	21.06	20.86	20.86	4.51	4.51	4.08	3.49	3.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Construction Equipment																		
Total (metric tons/month)	1,029.29	1,029.29	1,039.24	1,039.24	1,039.24	1,039.24	1,039.24	1,039.24	1,029.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (metric tons/day)	44.75	44.75	45.18	45.18	45.18	45.18	45.18	45.18	44.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Construction Vehicle																		
Total (metric tons/month)	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (metric tons/day) [a]	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Construction Vehicle Idle Emissions																		
Total (metric tons/month)	0.07	0.07	0.07	0.07	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.04	0.04	0.04	0.04	0.03	0.03
Total (metric tons/day) [a]	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
Onroad Construction Vehicle																		
Total (metric tons/month)	65.56	75.12	75.48	79.58	76.00	67.70	60.60	44.48	20.16	9.02	6.57	5.47	5.42	4.60	1.76	1.76	1.38	1.38
Total (metric tons/day) [a]	2.85	3.27	3.28	3.46	3.30	2.94	2.63	1.93	0.88	0.39	0.29	0.24	0.24	0.20	0.08	0.08	0.06	0.06
Total Project CO_2 Emissions (Construction Equipment and Vehicles)																		
Total Onsite Monthly Emissions (metric tons/month)	**487.30**	**513.13**	**484.60**	**484.60**	**479.92**	**479.91**	**103.94**	**103.94**	**93.89**	**80.33**	**69.51**	**0.01**	**0.04**	**0.04**	**0.04**	**0.04**	**0.03**	**0.03**
Total Onsite Daily Emissions (metric tons/day)	**21.19**	**22.31**	**21.07**	**21.07**	**20.87**	**20.87**	**4.52**	**4.52**	**4.08**	**3.49**	**3.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Offsite Monthly Emissions (metric tons/month)	**1,094.85**	**1,104.41**	**1,114.72**	**1,118.82**	**1,115.24**	**1,106.95**	**1,099.84**	**1,083.72**	**1,049.45**	**9.02**	**6.57**	**5.47**	**5.42**	**4.60**	**1.76**	**1.76**	**1.38**	**1.38**
Total Offsite Daily Emissions (metric tons/day)	**47.60**	**48.02**	**48.47**	**48.64**	**48.49**	**48.13**	**47.82**	**47.12**	**45.63**	**0.39**	**0.29**	**0.24**	**0.24**	**0.20**	**0.08**	**0.08**	**0.06**	**0.06**
Total Monthly Emissions (metric tons/month)	**1,582.15**	**1,617.54**	**1,599.33**	**1,603.42**	**1,595.17**	**1,586.86**	**1,203.78**	**1,187.66**	**1,143.33**	**89.36**	**76.08**	**5.48**	**5.46**	**4.64**	**1.80**	**1.80**	**1.42**	**1.42**
Total Daily Emissions (metric tons/day)	**68.79**	**70.33**	**69.54**	**69.71**	**69.36**	**68.99**	**52.34**	**51.64**	**49.71**	**3.89**	**3.31**	**0.24**	**0.24**	**0.20**	**0.08**	**0.08**	**0.06**	**0.06**
Rolling 12 Month Total (Metric Tons)	**16,883.42**	**18,272.11**	**18,606.86**	**18,872.92**	**18,994.09**	**19,106.45**	**18,774.74**	**18,422.98**	**17,781.30**	**16,295.50**	**14,835.64**	**13,290.15**	**11,713.47**	**10,100.57**	**8,503.04**	**6,901.42**	**5,307.67**	**3,722.22**
Total Project Emissions (metric tons)																		
Average Daily Emissions (metric tons/day) [b, c]																		

N_2O Emissions

Emission Source	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Construction Equipment																		
Total (metric tons/month)	3.95E-03	4.16E-03	3.93E-03	3.93E-03	3.89E-03	3.89E-03	8.42E-04	8.42E-04	7.60E-04	6.51E-04	5.63E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total (metric tons/day)	1.72E-04	1.81E-04	1.71E-04	1.71E-04	1.69E-04	1.69E-04	3.66E-05	3.66E-05	3.31E-05	2.83E-05	2.45E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Offsite Construction Equipment																		
Total (metric tons/month)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (metric tons/day)	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
Onsite Construction Vehicle																		
Total (metric tons/month)	2.45E-07	2.45E-07	2.45E-07	2.45E-07	2.45E-07	2.45E-07	2.45E-07	2.45E-07	2.45E-07	2.45E-07	2.45E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total (metric tons/day) [a]	1.07E-08	1.07E-08	1.07E-08	1.07E-08	1.07E-08	1.07E-08	1.07E-08	1.07E-08	1.07E-08	1.07E-08	1.07E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Onsite Construction Vehicle Idle Emissions																		
Total (metric tons/month)	1.46E-07	1.46E-07	1.38E-07	1.38E-07	6.31E-08	4.63E-08	4.63E-08	4.63E-08	4.63E-08	1.26E-08	1.26E-08	1.26E-08	8.42E-08	8.42E-08	7.91E-08	7.91E-08	6.23E-08	6.23E-08
Total (metric tons/day) [a]	6.37E-09	6.37E-09	6.00E-09	6.00E-09	2.75E-09	2.01E-09	2.01E-09	2.01E-09	2.01E-09	5.49E-10	5.49E-10	5.49E-10	3.66E-09	3.66E-09	3.44E-09	3.44E-09	2.71E-09	2.71E-09
Onroad Construction Vehicle																		
Total (metric tons/month)	2.53E-04	2.91E-04	2.93E-04	3.09E-04	2.99E-04	2.67E-04	2.39E-04	1.74E-04	7.77E-05	3.52E-05	2.54E-05	2.11E-05	1.70E-05	1.38E-05	2.75E-06	2.75E-06	2.16E-06	2.16E-06
Total (metric tons/day) [a]	1.10E-05	1.26E-05	1.27E-05	1.34E-05	1.30E-05	1.16E-05	1.04E-05	7.58E-06	3.38E-06	1.53E-06	1.11E-06	9.17E-07	7.41E-07	5.99E-07	1.19E-07	1.19E-07	9.40E-08	9.40E-08
Total Project N_2O Emissions (Construction Equipment and Vehicles)																		
Total Onsite Monthly Emissions (metric tons/month)	**3.95E-03**	**4.16E-03**	**3.93E-03**	**3.93E-03**	**3.89E-03**	**3.89E-03**	**8.42E-04**	**8.42E-04**	**7.61E-04**	**6.51E-04**	**5.63E-04**	**1.26E-08**	**8.42E-08**	**8.42E-08**	**7.91E-08**	**7.91E-08**	**6.23E-08**	**6.23E-08**
Total Onsite Daily Emissions (metric tons/day)	**1.72E-04**	**1.81E-04**	**1.71E-04**	**1.71E-04**	**1.69E-04**	**1.69E-04**	**3.66E-05**	**3.66E-05**	**3.31E-05**	**2.83E-05**	**2.45E-05**	**5.49E-10**	**3.66E-09**	**3.66E-09**	**3.44E-09**	**3.44E-09**	**2.71E-09**	**2.71E-09**
Total Offsite Monthly Emissions (metric tons/month)	**8.60E-03**	**8.64E-03**	**8.72E-03**	**8.74E-03**	**8.73E-03**	**8.70E-03**	**8.67E-03**	**8.61E-03**	**8.43E-03**	**3.52E-05**	**2.54E-05**	**2.11E-05**	**1.70E-05**	**1.38E-05**	**2.75E-06**	**2.75E-06**	**2.16E-06**	**2.16E-06**
Total Offsite Daily Emissions (metric tons/day)	**3.74E-04**	**3.76E-04**	**3.79E-04**	**3.80E-04**	**3.80E-04**	**3.78E-04**	**3.77E-04**	**3.74E-04**	**3.66E-04**	**1.53E-06**	**1.11E-06**	**9.17E-07**	**7.41E-07**	**5.99E-07**	**1.19E-07**	**1.19E-07**	**9.40E-08**	**9.40E-08**
Total Monthly Emissions (metric tons/month)	**1.26E-02**	**1.28E-02**	**1.27E-02**	**1.27E-02**	**1.26E-02**	**1.26E-02**	**9.51E-03**	**9.45E-03**	**9.19E-03**	**6.86E-04**	**5.89E-04**	**2.11E-05**	**1.71E-05**	**1.39E-05**	**2.82E-06**	**2.82E-06**	**2.22E-06**	**2.22E-06**
Total Daily Emissions (metric tons/day)	**5.46E-04**	**5.57E-04**	**5.50E-04**	**5.51E-04**	**5.49E-04**	**5.47E-04**	**4.14E-04**	**4.11E-04**	**4.00E-04**	**2.98E-05**	**2.56E-05**	**9.17E-07**	**7.45E-07**	**6.03E-07**	**1.23E-07**	**1.23E-07**	**9.67E-08**	**9.67E-08**
Rolling 12 Month Total (Metric Tons)	**0.13**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.14**	**0.13**	**0.12**	**0.11**	**0.09**	**0.08**	**0.07**	**0.05**	**0.04**	**0.03**
Total Project Emissions (metric tons)																		
Average Daily Emissions (metric tons/day) [b, c]																		

BHE Renewables

Morton Bay Construction Emissions

Construction Emissions Summary by Source Category

April 2023

CH_4 Emissions

Emission Source	CH_4 Emissions by Month																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Construction Equipment																		
Total (metric tons/month)	0.00E+00	0.00E+00	0.00E+00	9.32E-03	1.25E-02	1.42E-02	1.59E-02	8.48E-03	8.92E-03	1.13E-02	1.66E-02	1.66E-02	1.85E-02	1.85E-02	2.75E-02	1.90E-02	1.85E-02	1.87E-02
Total (metric tons/day)	0.00E+00	0.00E+00	0.00E+00	4.05E-04	5.42E-04	6.19E-04	6.93E-04	3.69E-04	3.88E-04	4.92E-04	7.20E-04	7.20E-04	8.05E-04	8.05E-04	1.19E-03	8.27E-04	8.05E-04	8.14E-04
Offsite Construction Equipment																		
Total (metric tons/month)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Total (metric tons/day)	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
Onsite Construction Vehicle																		
Total (metric tons/month)	0.00E+00	0.00E+00	0.00E+00	5.52E-06	5.52E-06	5.52E-06	5.52E-06	5.52E-06	5.52E-06	5.52E-06	5.52E-06	5.52E-06	5.52E-06	5.52E-06	5.52E-06	5.52E-06	5.52E-06	5.52E-06
Total (metric tons/day) [a]	0.00E+00	0.00E+00	0.00E+00	2.40E-07	2.40E-07	2.40E-07	2.40E-07	2.40E-07	2.40E-07	2.40E-07	2.40E-07	2.40E-07	2.40E-07	2.40E-07	2.40E-07	2.40E-07	2.40E-07	2.40E-07
Onsite Construction Vehicle Idle Emissions																		
Total (metric tons/month)	4.88E-08	7.62E-08	1.68E-07	2.59E-07	4.42E-07	4.42E-07	4.88E-07	6.70E-07	7.92E-07	7.92E-07	1.01E-06	1.23E-06	1.52E-06	1.74E-06	1.72E-06	1.62E-06	1.49E-06	1.18E-06
Total (metric tons/day) [a]	2.12E-09	3.31E-09	7.29E-09	1.13E-08	1.92E-08	1.92E-08	2.12E-08	2.92E-08	3.45E-08	3.45E-08	4.37E-08	5.36E-08	6.61E-08	7.55E-08	7.46E-08	7.03E-08	6.48E-08	5.14E-08
Onroad Construction Vehicle																		
Total (metric tons/month)	7.67E-08	1.20E-07	2.64E-07	5.99E-05	9.73E-05	2.91E-04	4.39E-04	4.77E-04	6.18E-04	7.22E-04	9.08E-04	8.94E-04	1.20E-03	1.26E-03	1.13E-03	1.11E-03	1.21E-03	1.54E-03
Total (metric tons/day) [a]	3.34E-09	5.21E-09	1.15E-08	2.60E-06	4.23E-06	1.26E-05	1.91E-05	2.07E-05	2.69E-05	3.14E-05	3.95E-05	3.89E-05	5.21E-05	5.47E-05	4.92E-05	4.83E-05	5.28E-05	6.70E-05
Total Project CH_4 Emissions (Construction Equipment and Vehicles)																		
Total Onsite Monthly Emissions (metric tons/month)	**4.88E-08**	**7.62E-08**	**1.68E-07**	**9.33E-03**	**1.25E-02**	**1.42E-02**	**1.59E-02**	**8.49E-03**	**8.93E-03**	**1.13E-02**	**1.66E-02**	**1.66E-02**	**1.85E-02**	**1.85E-02**	**2.75E-02**	**1.90E-02**	**1.85E-02**	**1.87E-02**
Total Onsite Daily Emissions (metric tons/day)	**2.12E-09**	**3.31E-09**	**7.29E-09**	**4.05E-04**	**5.43E-04**	**6.19E-04**	**6.93E-04**	**3.69E-04**	**3.88E-04**	**4.92E-04**	**7.20E-04**	**7.20E-04**	**8.06E-04**	**8.06E-04**	**1.19E-03**	**8.28E-04**	**8.06E-04**	**8.14E-04**
Total Offsite Monthly Emissions (metric tons/month)	**7.67E-08**	**1.20E-07**	**2.64E-07**	**5.99E-05**	**9.73E-05**	**2.91E-04**	**4.39E-04**	**4.77E-04**	**4.20E-02**	**4.25E-02**	**4.27E-02**	**4.26E-02**	**4.30E-02**	**4.30E-02**	**4.41E-02**	**4.41E-02**	**4.30E-02**	**4.33E-02**
Total Offsite Daily Emissions (metric tons/day)	**3.34E-09**	**5.21E-09**	**1.15E-08**	**2.60E-06**	**4.23E-06**	**1.26E-05**	**1.91E-05**	**2.07E-05**	**1.82E-03**	**1.85E-03**	**1.85E-03**	**1.85E-03**	**1.87E-03**	**1.87E-03**	**1.92E-03**	**1.92E-03**	**1.87E-03**	**1.88E-03**
Total Monthly Emissions (metric tons/month)	**1.26E-07**	**1.96E-07**	**4.31E-07**	**9.39E-03**	**1.26E-02**	**1.45E-02**	**1.64E-02**	**8.97E-03**	**5.09E-02**	**5.38E-02**	**5.92E-02**	**5.92E-02**	**6.15E-02**	**6.15E-02**	**7.16E-02**	**6.31E-02**	**6.15E-02**	**6.20E-02**
Total Daily Emissions (metric tons/day)	**5.46E-09**	**8.53E-09**	**1.88E-08**	**4.08E-04**	**5.47E-04**	**6.32E-04**	**7.12E-04**	**3.90E-04**	**2.21E-03**	**2.34E-03**	**2.57E-03**	**2.57E-03**	**2.67E-03**	**2.68E-03**	**3.11E-03**	**2.74E-03**	**2.67E-03**	**2.70E-03**
Rolling 12 Month Total (Metric Tons)												**0.28**	**0.35**	**0.41**	**0.48**	**0.53**	**0.58**	**0.63**
Total Project Emissions (metric tons)	**1.20E+00**																	
Average Daily Emissions (metric tons/day) [b, c]	**1.79E-03**																	

Notes:

[a] Daily transportation emissions are presented as average daily emissions.

[b] Per information provided by the Applicant's engineering contractor, work days per month are as follows:

23	
29	

[c] Average daily emissions conservatively estimated based on the months in which heavy construction activity is expected, as follows:

BHE Renewables

Morton Bay Construction Emissions

Construction Emissions Summary by Source Category

April 2023

CH_4 Emissions

Emission Source	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Construction Equipment																		
Total (metric tons/month)	1.98E-02	2.08E-02	1.96E-02	1.96E-02	1.95E-02	1.95E-02	4.21E-03	4.21E-03	3.80E-03	3.25E-03	2.81E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total (metric tons/day)	8.59E-04	9.05E-04	8.54E-04	8.54E-04	8.46E-04	8.46E-04	1.83E-04	1.83E-04	1.65E-04	1.41E-04	1.22E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Offsite Construction Equipment																		
Total (metric tons/month)	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (metric tons/day)	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
Onsite Construction Vehicle																		
Total (metric tons/month)	5.52E-06	5.52E-06	5.52E-06	5.52E-06	5.52E-06	5.52E-06	5.52E-06	5.52E-06	5.52E-06	5.52E-06	5.52E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total (metric tons/day) [a]	2.40E-07	2.40E-07	2.40E-07	2.40E-07	2.40E-07	2.40E-07	2.40E-07	2.40E-07	2.40E-07	2.40E-07	2.40E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Onsite Construction Vehicle Idle Emissions																		
Total (metric tons/month)	1.06E-06	1.06E-06	1.00E-06	1.00E-06	4.57E-07	3.35E-07	3.35E-07	3.35E-07	3.35E-07	9.14E-08	9.14E-08	9.14E-08	6.10E-07	6.10E-07	5.73E-07	5.73E-07	4.51E-07	4.51E-07
Total (metric tons/day) [a]	4.61E-08	4.61E-08	4.35E-08	4.35E-08	1.99E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	3.98E-09	3.98E-09	3.98E-09	2.65E-08	2.65E-08	2.49E-08	2.49E-08	1.96E-08	1.96E-08
Onroad Construction Vehicle																		
Total (metric tons/month)	1.70E-03	1.96E-03	1.97E-03	2.08E-03	2.03E-03	1.81E-03	1.62E-03	1.18E-03	5.21E-04	2.38E-04	1.71E-04	1.41E-04	9.76E-05	7.53E-05	9.02E-07	9.02E-07	7.10E-07	7.10E-07
Total (metric tons/day) [a]	7.37E-05	8.51E-05	8.57E-05	9.05E-05	8.82E-05	7.89E-05	7.05E-05	5.14E-05	2.26E-05	1.03E-05	7.44E-06	6.15E-06	4.24E-06	3.27E-06	3.92E-08	3.92E-08	3.09E-08	3.09E-08
Total Project CH_4 Emissions (Construction Equipment and Vehicles)																		
Total Onsite Monthly Emissions (metric tons/month)	**1.98E-02**	**2.08E-02**	**1.97E-02**	**1.97E-02**	**1.95E-02**	**1.95E-02**	**4.22E-03**	**4.22E-03**	**3.81E-03**	**3.26E-03**	**2.82E-03**	**9.14E-08**	**6.10E-07**	**6.10E-07**	**5.73E-07**	**5.73E-07**	**4.51E-07**	**4.51E-07**
Total Onsite Daily Emissions (metric tons/day)	**8.59E-04**	**9.05E-04**	**8.55E-04**	**8.55E-04**	**8.46E-04**	**8.46E-04**	**1.83E-04**	**1.83E-04**	**1.66E-04**	**1.42E-04**	**1.23E-04**	**3.98E-09**	**2.65E-08**	**2.65E-08**	**2.49E-08**	**2.49E-08**	**1.96E-08**	**1.96E-08**
Total Offsite Monthly Emissions (metric tons/month)	**4.34E-02**	**4.37E-02**	**4.41E-02**	**4.42E-02**	**4.42E-02**	**4.40E-02**	**4.38E-02**	**4.33E-02**	**4.23E-02**	**2.38E-04**	**1.71E-04**	**1.41E-04**	**9.76E-05**	**7.53E-05**	**9.02E-07**	**9.02E-07**	**7.10E-07**	**7.10E-07**
Total Offsite Daily Emissions (metric tons/day)	**1.89E-03**	**1.90E-03**	**1.92E-03**	**1.92E-03**	**1.92E-03**	**1.91E-03**	**1.90E-03**	**1.88E-03**	**1.84E-03**	**1.03E-05**	**7.44E-06**	**6.15E-06**	**4.24E-06**	**3.27E-06**	**3.92E-08**	**3.92E-08**	**3.09E-08**	**3.09E-08**
Total Monthly Emissions (metric tons/month)	**6.32E-02**	**6.45E-02**	**6.38E-02**	**6.39E-02**	**6.37E-02**	**6.34E-02**	**4.80E-02**	**4.76E-02**	**4.61E-02**	**3.50E-03**	**2.99E-03**	**1.41E-04**	**9.82E-05**	**7.59E-05**	**1.47E-06**	**1.47E-06**	**1.16E-06**	**1.16E-06**
Total Daily Emissions (metric tons/day)	**2.75E-03**	**2.81E-03**	**2.77E-03**	**2.78E-03**	**2.77E-03**	**2.76E-03**	**2.09E-03**	**2.07E-03**	**2.00E-03**	**1.52E-04**	**1.30E-04**	**6.15E-06**	**4.27E-06**	**3.30E-06**	**6.41E-08**	**6.41E-08**	**5.05E-08**	**5.05E-08**
Rolling 12 Month Total (Metric Tons)	**0.68**	**0.73**	**0.74**	**0.76**	**0.76**	**0.76**	**0.75**	**0.74**	**0.71**	**0.65**	**0.59**	**0.53**	**0.47**	**0.40**	**0.34**	**0.28**	**0.21**	**0.15**
Total Project Emissions (metric tons)																		
Average Daily Emissions (metric tons/day) [b, c]																		

Notes:

[a] Daily transportation emissions are presented as average daily emissions.

[b] Per information provided by the Applicant's engineering contractor, work days per month are as follows:

[c] Average daily emissions conservatively estimated based on the months in which heavy construction activity is expected, as follows:

BHE Renewables

Morton Bay Construction Emissions
Number of Equipment and Vehicles
April 2023

Number of Construction Equipment for BHER Morton Bay Construction

Construction Equipment	Location of Equipment Operation	Number per Day [a]																					
		2024												2025									
		January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October
Excavator	Onsite	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backhoe	Onsite	0	0	0	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Wheel Dump Truck	Onsite	0	0	0	2	4	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dozer	Onsite	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Front End Loader	Onsite	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150 Ton Hydraulic Crane	Onsite	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
75 Ton Hydraulic Crane	Onsite	0	0	0	0	0	0	0	0	0	2	4	4	4	4	4	4	4	4	4	4	4	4
35 Ton Hydraulic Crane	Onsite	0	0	0	0	0	3	3	4	4	4	7	7	7	7	7	7	7	7	7	7	7	7
Pile Driver	Onsite	0	0	0	3	4	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fork Lift	Onsite	0	0	0	0	0	0	0	1	1	1	1	1	3	3	3	3	3	3	3	3	3	3
Grader	Onsite	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drill Rigs	Offsite [b]	0	0	0	0	0	0	0	0	1	2	2	2	2	2	2	2	2	2	2	2	3	3
Drilling Diesel Generator (Kenai)	Offsite [b]	0	0	0	0	0	0	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Drilling Rental Generator	Offsite [b]	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Drilling Pump	Offsite [b]	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Drilling Forklift	Offsite [b]	0	0	0	0	0	0	0	0	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Drilling Manlift	Offsite [b]	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Drilling Backhoe	Offsite [b]	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Drilling Light Tower	Offsite [b]	0	0	0	0	0	0	0	0	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Pavers [d]	Onsite and Offsite [c]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
Paving Equipment [d]	Onsite and Offsite [c]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
Paving Rollers [d]	Onsite and Offsite [c]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0
Paving Tractor/Loader/Backhoe [d]	Onsite and Offsite [c]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0
Electrical Generators	Onsite	0	0	0	0	0	0	3	3	3	4	4	4	7	7	7	7	7	7	7	7	7	7
Concrete Pump Trucks	Onsite	0	0	0	0	0	0	1	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0
Diesel Welders	Onsite	0	0	0	0	0	0	0	4	6	6	6	6	12	12	12	12	12	12	12	12	12	12
Compactor	Onsite	0	0	0	0	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	3	0	0
Stake Truck	Onsite	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Water Truck (shared between 3 projects)	Onsite	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Air Compressor	Onsite	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	2	2	2	2	2
Light Towers	Onsite	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Lift Lattice boom Main Crane	Onsite	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Lift Lattice boom Tail Crane	Onsite	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy lift Gantry Crane	Onsite	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0

Notes:
[a] Equipment counts presented above were provided by the Applicant's engineering contractor.
[b] Drilling equipment will not be stationed at a single area longer than 2 months.
[c] Paving operations will occur both onsite and offsite. The same equipment will be used at all paving locations
[d] Paving equipment types, counts, and duration are from default data in CalEEMOD for paving.

Number of Vehicles for BHER Morton Bay Construction

Vehicle Type	Location of Vehicle Operation	Average Number per Day [a]																					
		2024												2025									
		January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October
Delivery Truck	Offsite	0.4	0.625	1.375	2.125	3.625	3.625	4	5.5	6.5	6.5	8.25	9.25	10.75	9.75	9.75	10.5	10.5	9.7	8.7	8.7	8.2	8.2
Pickup Truck	Onsite	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Heavy Haul Truck	Offsite	0	0	0	0	0	0	0	0	0	0	0	0.5	1	2.6	2.5	1.6	1	0	0	0	0	0
Worker Commutes [b]	Offsite	0	0	0	16	26	78	118	128	166	194	244	240	322	338	304	298	326	414	456	526	530	560

Notes:
[a] Vehicle counts presented above were provided by the Applicant's engineering contractor.
[b] Assumed 1 commute per 1 worker; number of workers traveling to both onsite and offsite locations provided by the Applicant's engineering contractor as Total Staffing each month.

BHE Renewables

Morton Bay Construction Emissions
Number of Equipment and Vehicles
April 2023

Number of Construction Equipment for BHER Morton Bay Construction

Construction Equipment	Location of Equipment Operation	2026													
		November	December	January	February	March	April	May	June	July	August	September	October	November	December
Excavator	Onsite	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backhoe	Onsite	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Wheel Dump Truck	Onsite	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dozer	Onsite	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Front End Loader	Onsite	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150 Ton Hydraulic Crane	Onsite	1	1	0	0	0	0	0	0	0	0	0	0	0	0
75 Ton Hydraulic Crane	Onsite	4	4	0	0	0	0	0	0	0	0	0	0	0	0
35 Ton Hydraulic Crane	Onsite	7	7	0	0	0	0	0	0	0	0	0	0	0	0
Pile Driver	Onsite	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fork Lift	Onsite	3	3	0	0	0	0	0	0	0	0	0	0	0	0
Grader	Onsite	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drill Rigs	Offsite [b]	3	3	3	3	2	0	0	0	0	0	0	0	0	0
Drilling Diesel Generator (Kenai)	Offsite [b]	3	3	3	3	3	0	0	0	0	0	0	0	0	0
Drilling Rental Generator	Offsite [b]	1	1	1	1	1	0	0	0	0	0	0	0	0	0
Drilling Pump	Offsite [b]	1	1	1	1	1	0	0	0	0	0	0	0	0	0
Drilling Forklift	Offsite [b]	5	5	5	5	5	0	0	0	0	0	0	0	0	0
Drilling Manlift	Offsite [b]	1	1	1	1	1	0	0	0	0	0	0	0	0	0
Drilling Backhoe	Offsite [b]	1	1	1	1	1	0	0	0	0	0	0	0	0	0
Drilling Light Tower	Offsite [b]	5	5	5	5	5	0	0	0	0	0	0	0	0	0
Pavers [d]	Onsite and Offsite [c]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Paving Equipment [d]	Onsite and Offsite [c]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Paving Rollers [d]	Onsite and Offsite [c]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Paving Tractor/Loader/Backhoe [d]	Onsite and Offsite [c]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Generators	Onsite	7	7	3	3	3	0	0	0	0	0	0	0	0	0
Concrete Pump Trucks	Onsite	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diesel Welders	Onsite	12	12	4	4	3	2	0	0	0	0	0	0	0	0
Compactor	Onsite	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stake Truck	Onsite	1	1	1	1	1	1	1	0	0	0	0	0	0	0
Water Truck (shared between 3 projects)	Onsite	1	1	1	1	1	1	1	0	0	0	0	0	0	0
Air Compressor	Onsite	1	1	1	1	0	0	0	0	0	0	0	0	0	0
Light Towers	Onsite	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Lift Lattice boom Main Crane	Onsite	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Lift Lattice boom Tail Crane	Onsite	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy lift Gantry Crane	Onsite	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Notes:
[a] Equipment counts presented above were provided by the Applicant's engineering contractor.
[b] Drilling equipment will not be stationed at a single area longer than 2 months.
[c] Paving operations will occur both onsite and offsite. The same equipment will be used at all paving locations
[d] Paving equipment types, counts, and duration are from default data in CalEEMOD for paving.

Number of Vehicles for BHER Morton Bay Construction

Vehicle Type	Location of Vehicle Operation	2026													
		November	December	January	February	March	April	May	June	July	August	September	October	November	December
Delivery Truck	Offsite	3.75	2.75	2.75	2.75	2.75	0.75	0.75	0.75	5	5	4.7	4.7	3.7	3.7
Pickup Truck	Onsite	2	2	2	2	2	2	2	0	0	0	0	0	0	0
Heavy Haul Truck	Offsite	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worker Commutes [b]	Offsite	546	488	436	318	140	64	46	38	26	20	0	0	0	0

Notes:
[a] Vehicle counts presented above were provided by the Applicant's engineering contractor.
[b] Assumed 1 commute per 1 worker; number of workers traveling to both onsite and offsite locations provided by the Applicant's engineering contractor as Total Staffing each month.

BHE Renewables

Morton Bay Construction Emissions
Construction Equipment Emissions
April 2023

Construction Equipment CO Emissions from BHER Morton Bay Construction

Onsite Equipment	Equipment Location	CO Emissions (lb/month) [a, b]																	
		2024												2025					
		January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Excavator	Onsite	0.00	0.00	0.00	0.00	0.00	56.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Backhoe	Onsite	0.00	0.00	0.00	233.24	233.24	233.24	233.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 Wheel Dump Truck	Onsite	0.00	0.00	0.00	346.25	692.50	692.50	692.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dozer	Onsite	0.00	0.00	0.00	387.07	387.07	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
Front End Loader	Onsite	0.00	0.00	0.00	0.00	0.00	202.62	202.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150 Ton Hydraulic Crane	Onsite	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
75 Ton Hydraulic Crane	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	561.24	1,122.49	1,122.49	1,122.49	1,122.49	1,122.49	1,122.49	1,122.49	1,122.49
35 Ton Hydraulic Crane	Onsite	0.00	0.00	0.00	0.00	0.00	841.87	841.87	1,122.49	1,122.49	1,122.49	1,964.36	1,964.36	1,964.36	1,964.36	1,964.36	1,964.36	1,964.36	1,964.36
Pile Driver	Onsite	0.00	0.00	0.00	387.68	516.90	516.90	516.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fork Lift	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	61.54	61.54	61.54	61.54	61.54	184.61	184.61	184.61	184.61	184.61	184.61
Grader	Onsite	0.00	0.00	0.00	227.68	227.68	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
Drill Rigs	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	155.72	311.43	311.43	311.43	311.43	311.43	311.43	311.43	311.43	311.43
Drilling Diesel Generator (Kenai)	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8,707.77	8,707.77	8,707.77	8,707.77	8,707.77	8,707.77	8,707.77	8,707.77	8,707.77	8,707.77
Drilling Rental Generator	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	615.10	615.10	615.10	615.10	615.10	615.10	615.10	615.10	615.10	615.10
Drilling Pump	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	207.07	207.07	207.07	207.07	207.07	207.07	207.07	207.07	207.07	207.07
Drilling Forklift	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	720.42	720.42	720.42	720.42	720.42	720.42	720.42	720.42	720.42	720.42
Drilling Manlift	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	59.29	59.29	59.29	59.29	59.29	59.29	59.29	59.29	59.29	59.29
Drilling Backhoe	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	116.62	116.62	116.62	116.62	116.62	116.62	116.62	116.62	116.62	116.62
Drilling Light Tower	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	247.39	247.39	247.39	247.39	247.39	247.39	247.39	247.39	247.39	247.39
Pavers	Onsite and Offsite [c]	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	127.65	127.65	0.00	0.00
Paving Equipment	Onsite and Offsite [c]	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	120.22	120.22	0.00	0.00
Paving Rollers	Onsite and Offsite [c]	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	170.64	170.64	0.00	0.00
Paving Tractor/Loader/Backhoe	Onsite and Offsite [c]	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	233.24	233.24	0.00	0.00
Electrical Generators	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	90.79	90.79	90.79	121.06	121.06	121.06	211.85	211.85	211.85	211.85	211.85	211.85
Concrete Pump Trucks	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	173.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,038.75	0.00	0.00	0.00
Diesel Welders	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	344.27	516.40	516.40	516.40	516.40	1,032.81	1,032.81	1,032.81	1,032.81	1,032.81	1,032.81
Compactor	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	36.32	36.32	36.32	36.32	36.32	36.32	36.32	36.32	36.32	36.32	36.32	36.32
Stake Truck	Onsite	0.00	0.00	0.00	173.12	173.12	173.12	173.12	173.12	173.12	173.12	173.12	173.12	173.12	173.12	173.12	173.12	173.12	173.12
Water Truck (shared between 3 projects)	Onsite	0.00	0.00	0.00	173.12	173.12	173.12	173.12	173.12	173.12	173.12	173.12	173.12	173.12	173.12	173.12	173.12	173.12	173.12
Air Compressor	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	73.84	73.84	73.84	73.84	73.84	73.84	73.84	73.84	147.69
Light Towers	Onsite	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
Heavy Lift Lattice boom Main Crane	Onsite	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
Heavy Lift Lattice boom Tail Crane	Onsite	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
Heavy lift Gantry Crane	Onsite	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
Total Monthly Onsite Emissions (lb/month)		**0.00**	**0.00**	**0.00**	**1,928.16**	**2,403.64**	**2,890.25**	**3,133.61**	**2,001.66**	**2,173.79**	**2,839.15**	**4,242.26**	**4,242.26**	**4,972.53**	**4,972.53**	**6,204.64**	**5,165.89**	**4,972.53**	**5,046.37**
Total Monthly Offsite Emissions (lb/month)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**10,829.38**	**10,985.10**	**10,985.10**	**10,985.10**	**10,985.10**	**10,985.10**	**11,443.48**	**11,443.48**	**10,985.10**	**10,985.10**
Total Daily Onsite Emissions (lb/day) [b]		**0.00**	**0.00**	**0.00**	**83.83**	**104.51**	**125.66**	**136.24**	**87.03**	**94.51**	**123.44**	**184.45**	**184.45**	**216.20**	**216.20**	**269.77**	**224.60**	**216.20**	**219.41**
Total Daily Offsite Emissions (lb/day) [b]		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**470.84**	**477.61**	**477.61**	**477.61**	**477.61**	**477.61**	**497.54**	**497.54**	**477.61**	**477.61**
Total Project Emissions (tons)		**151.41**																	

BHE Renewables

Morton Bay Construction Emissions
Construction Equipment Emissions
April 2023

Construction Equipment CO Emissions from BHER Morton Bay Construction

Onsite Equipment	Equipment Location	2026																	
		July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Excavator	Onsite	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
Backhoe	Onsite	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
10 Wheel Dump Truck	Onsite	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
Dozer	Onsite	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
Front End Loader	Onsite	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
150 Ton Hydraulic Crane	Onsite	0.00	280.62	280.62	280.62	280.62	280.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75 Ton Hydraulic Crane	Onsite	1,122.49	1,122.49	1,122.49	1,122.49	1,122.49	1,122.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35 Ton Hydraulic Crane	Onsite	1,964.36	1,964.36	1,964.36	1,964.36	1,964.36	1,964.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pile Driver	Onsite	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
Fork Lift	Onsite	184.61	184.61	184.61	184.61	184.61	184.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	Onsite	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
Drill Rigs	Offsite	311.43	311.43	467.15	467.15	467.15	467.15	467.15	467.15	311.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Diesel Generator (Kenai)	Offsite	8,707.77	8,707.77	8,707.77	8,707.77	8,707.77	8,707.77	8,707.77	8,707.77	8,707.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Rental Generator	Offsite	615.10	615.10	615.10	615.10	615.10	615.10	615.10	615.10	615.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Pump	Offsite	207.07	207.07	207.07	207.07	207.07	207.07	207.07	207.07	207.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Forklift	Offsite	720.42	720.42	720.42	720.42	720.42	720.42	720.42	720.42	720.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Manlift	Offsite	59.29	59.29	59.29	59.29	59.29	59.29	59.29	59.29	59.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Backhoe	Offsite	116.62	116.62	116.62	116.62	116.62	116.62	116.62	116.62	116.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Light Tower	Offsite	247.39	247.39	247.39	247.39	247.39	247.39	247.39	247.39	247.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pavers	Onsite and Offsite [c]	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
Paving Equipment	Onsite and Offsite [c]	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
Paving Rollers	Onsite and Offsite [c]	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
Paving Tractor/Loader/Backhoe	Onsite and Offsite [c]	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
Electrical Generators	Onsite	211.85	211.85	211.85	211.85	211.85	211.85	90.79	90.79	90.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump Trucks	Onsite	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
Diesel Welders	Onsite	1,032.81	1,032.81	1,032.81	1,032.81	1,032.81	1,032.81	344.27	344.27	258.20	172.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Compactor	Onsite	36.32	36.32	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
Stake Truck	Onsite	173.12	173.12	173.12	173.12	173.12	173.12	173.12	173.12	173.12	173.12	173.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Truck (shared between 3 projects)	Onsite	173.12	173.12	173.12	173.12	173.12	173.12	173.12	173.12	173.12	173.12	173.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Air Compressor	Onsite	147.69	147.69	147.69	147.69	73.84	73.84	73.84	73.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Light Towers	Onsite	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
Heavy Lift Lattice boom Main Crane	Onsite	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
Heavy Lift Lattice boom Tail Crane	Onsite	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
Heavy lift Gantry Crane	Onsite	280.62	280.62	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
Total Monthly Onsite Emissions (lb/month)		**5,326.99**	**5,607.62**	**5,290.68**	**5,290.68**	**5,216.83**	**5,216.83**	**855.16**	**855.16**	**695.25**	**518.38**	**346.25**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Monthly Offsite Emissions (lb/month)		**10,985.10**	**10,985.10**	**11,140.81**	**11,140.81**	**11,140.81**	**11,140.81**	**11,140.81**	**11,140.81**	**10,985.10**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Daily Onsite Emissions (lb/day) [b]		**231.61**	**243.81**	**230.03**	**230.03**	**226.82**	**226.82**	**37.18**	**37.18**	**30.23**	**22.54**	**15.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Daily Offsite Emissions (lb/day) [b]		**477.61**	**477.61**	**484.38**	**484.38**	**484.38**	**484.38**	**484.38**	**484.38**	**477.61**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Project Emissions (tons)																			

BHE Renewables Morton Bay Construction

Emissions Construction Equipment Emissions

April 2023

Construction Equipment VOC Emissions from BHER Morton Bay Construction

Onsite Equipment	Equipment Location	VOC Emissions (lb/month) [a, b]																	
		2024												2025					
		January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Excavator	Onsite	0.00	0.00	0.00	0.00	0.00	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Backhoe	Onsite	0.00	0.00	0.00	3.15	3.15	3.15	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 Wheel Dump Truck	Onsite	0.00	0.00	0.00	53.15	106.31	106.31	106.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dozer	Onsite	0.00	0.00	0.00	7.44	7.44	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
Front End Loader	Onsite	0.00	0.00	0.00	0.00	0.00	2.74	2.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150 Ton Hydraulic Crane	Onsite	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
75 Ton Hydraulic Crane	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.79	21.59	21.59	21.59	21.59	21.59	21.59	21.59	21.59
35 Ton Hydraulic Crane	Onsite	0.00	0.00	0.00	0.00	0.00	16.19	16.19	21.59	21.59	21.59	37.78	37.78	37.78	37.78	37.78	37.78	37.78	37.78
Pile Driver	Onsite	0.00	0.00	0.00	5.24	6.99	6.99	6.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fork Lift	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83	0.83	0.83	0.83	0.83	2.49	2.49	2.49	2.49	2.49	2.49
Grader	Onsite	0.00	0.00	0.00	3.08	3.08	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
Drill Rigs	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.10	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21
Drilling Diesel Generator (Kenai)	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,273.44	1,273.44	1,273.44	1,273.44	1,273.44	1,273.44	1,273.44	1,273.44	1,273.44	1,273.44
Drilling Rental Generator	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	70.12	70.12	70.12	70.12	70.12	70.12	70.12	70.12	70.12	70.12
Drilling Pump	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.56	15.56	15.56	15.56	15.56	15.56	15.56	15.56	15.56	15.56
Drilling Forklift	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.74	9.74	9.74	9.74	9.74	9.74	9.74	9.74	9.74	9.74
Drilling Manlift	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Drilling Backhoe	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58
Drilling Light Tower	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.43	5.43	5.43	5.43	5.43	5.43	5.43	5.43	5.43	5.43
Pavers	Onsite and Offsite [c]	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	1.73	1.73	0.00	0.00
Paving Equipment	Onsite and Offsite [c]	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	1.62	1.62	0.00	0.00
Paving Rollers	Onsite and Offsite [c]	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	3.75	3.75	0.00	0.00
Paving Tractor/Loader/Backhoe	Onsite and Offsite [c]	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	3.15	3.15	0.00	0.00
Electrical Generators	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	17.20	17.20	17.20	22.93	22.93	22.93	40.13	40.13	40.13	40.13	40.13	40.13
Concrete Pump Trucks	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	26.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	159.46	0.00	0.00	0.00
Diesel Welders	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.56	11.34	11.34	11.34	11.34	22.67	22.67	22.67	22.67	22.67	22.67
Compactor	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	5.72	5.72	5.72	5.72	5.72	5.72	5.72	5.72	5.72	5.72	5.72	5.72
Stake Truck	Onsite	0.00	0.00	0.00	26.58	26.58	26.58	26.58	26.58	26.58	26.58	26.58	26.58	26.58	26.58	26.58	26.58	26.58	26.58
Water Truck (shared between 3 projects)	Onsite	0.00	0.00	0.00	26.58	26.58	26.58	26.58	26.58	26.58	26.58	26.58	26.58	26.58	26.58	26.58	26.58	26.58	26.58
Air Compressor	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62	3.24
Light Towers	Onsite	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
Heavy Lift Lattice boom Main Crane	Onsite	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
Heavy Lift Lattice boom Tail Crane	Onsite	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
Heavy lift Gantry Crane	Onsite	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
Total Monthly Onsite Emissions (lb/month)		**0.00**	**0.00**	**0.00**	**125.22**	**180.12**	**189.78**	**238.03**	**106.05**	**109.83**	**127.98**	**154.96**	**154.96**	**185.16**	**185.16**	**347.66**	**188.20**	**185.16**	**186.78**
Total Monthly Offsite Emissions (lb/month)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1,379.26**	**1,381.37**	**1,381.37**	**1,381.37**	**1,381.37**	**1,381.37**	**1,388.57**	**1,388.57**	**1,381.37**	**1,381.37**
Total Daily Onsite Emissions (lb/day) [b]		**0.00**	**0.00**	**0.00**	**5.44**	**7.83**	**8.25**	**10.35**	**4.61**	**4.78**	**5.56**	**6.74**	**6.74**	**8.05**	**8.05**	**15.12**	**8.18**	**8.05**	**8.12**
Total Daily Offsite Emissions (lb/day) [b]		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**59.97**	**60.06**	**60.06**	**60.06**	**60.06**	**60.06**	**60.37**	**60.37**	**60.06**	**60.06**
Total Project Emissions (tons)		**15.21**																	

BHE Renewables

Morton Bay Construction Emissions

Construction Equipment Emissions

April 2023

Construction Equipment VOC Emissions from BHER Morton Bay Construction

Onsite Equipment	Equipment Location	2026						2026						2026					
		July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Excavator	Onsite	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
Backhoe	Onsite	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
10 Wheel Dump Truck	Onsite	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
Dozer	Onsite	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
Front End Loader	Onsite	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
150 Ton Hydraulic Crane	Onsite	0.00	5.40	5.40	5.40	5.40	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75 Ton Hydraulic Crane	Onsite	21.59	21.59	21.59	21.59	21.59	21.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35 Ton Hydraulic Crane	Onsite	37.78	37.78	37.78	37.78	37.78	37.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pile Driver	Onsite	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
Fork Lift	Onsite	2.49	2.49	2.49	2.49	2.49	2.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	Onsite	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
Drill Rigs	Offsite	4.21	4.21	6.31	6.31	6.31	6.31	6.31	6.31	4.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Diesel Generator (Kenai)	Offsite	1,273.44	1,273.44	1,273.44	1,273.44	1,273.44	1,273.44	1,273.44	1,273.44	1,273.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Rental Generator	Offsite	70.12	70.12	70.12	70.12	70.12	70.12	70.12	70.12	70.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Pump	Offsite	15.56	15.56	15.56	15.56	15.56	15.56	15.56	15.56	15.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Forklift	Offsite	9.74	9.74	9.74	9.74	9.74	9.74	9.74	9.74	9.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Manlift	Offsite	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Backhoe	Offsite	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Light Tower	Offsite	5.43	5.43	5.43	5.43	5.43	5.43	5.43	5.43	5.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pavers	Onsite and Offsite [c]	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
Paving Equipment	Onsite and Offsite [c]	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
Paving Rollers	Onsite and Offsite [c]	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
Paving Tractor/Loader/Backhoe	Onsite and Offsite [c]	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
Electrical Generators	Onsite	40.13	40.13	40.13	40.13	40.13	40.13	17.20	17.20	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump Trucks	Onsite	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
Diesel Welders	Onsite	22.67	22.67	22.67	22.67	22.67	22.67	7.56	7.56	5.67	3.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Compactor	Onsite	5.72	5.72	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
Stake Truck	Onsite	26.58	26.58	26.58	26.58	26.58	26.58	26.58	26.58	26.58	26.58	26.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Truck (shared between 3 projects)	Onsite	26.58	26.58	26.58	26.58	26.58	26.58	26.58	26.58	26.58	26.58	26.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Air Compressor	Onsite	3.24	3.24	3.24	3.24	1.62	1.62	1.62	1.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Light Towers	Onsite	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
Heavy Lift Lattice boom Main Crane	Onsite	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
Heavy Lift Lattice boom Tail Crane	Onsite	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
Heavy lift Gantry Crane	Onsite	5.40	5.40	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
Total Monthly Onsite Emissions (lb/month)		**192.17**	**197.57**	**186.45**	**186.45**	**184.83**	**184.83**	**79.53**	**79.53**	**76.02**	**56.93**	**53.15**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Monthly Offsite Emissions (lb/month)		**1,381.37**	**1,381.37**	**1,383.47**	**1,383.47**	**1,383.47**	**1,383.47**	**1,383.47**	**1,383.47**	**1,381.37**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Daily Onsite Emissions (lb/day) [b]		**8.36**	**8.59**	**8.11**	**8.11**	**8.04**	**8.04**	**3.46**	**3.46**	**3.31**	**2.48**	**2.31**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Daily Offsite Emissions (lb/day) [b]		**60.06**	**60.06**	**60.15**	**60.15**	**60.15**	**60.15**	**60.15**	**60.15**	**60.06**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Project Emissions (tons)																			

BHE Renewables

Morton Bay Construction Emissions

Construction Equipment Emissions

April 2023

Construction Equipment NO_X Emissions from BHER Morton Bay Construction

Onsite Equipment	Equipment Location	NO_X Emissions (lb/month) [a, b]																	
		2024												2025					
		January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Excavator	Onsite	0.00	0.00	0.00	0.00	0.00	38.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Backhoe	Onsite	0.00	0.00	0.00	16.39	16.39	16.39	16.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 Wheel Dump Truck	Onsite	0.00	0.00	0.00	358.11	716.22	716.22	716.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dozer	Onsite	0.00	0.00	0.00	38.71	38.71	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
Front End Loader	Onsite	0.00	0.00	0.00	0.00	0.00	14.24	14.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150 Ton Hydraulic Crane	Onsite	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
75 Ton Hydraulic Crane	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	56.12	112.25	112.25	112.25	112.25	112.25	112.25	112.25	112.25
35 Ton Hydraulic Crane	Onsite	0.00	0.00	0.00	0.00	0.00	84.19	84.19	112.25	112.25	112.25	196.44	196.44	196.44	196.44	196.44	196.44	196.44	196.44
Pile Driver	Onsite	0.00	0.00	0.00	27.24	36.32	36.32	36.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fork Lift	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.32	4.32	4.32	4.32	4.32	12.97	12.97	12.97	12.97	12.97	12.97
Grader	Onsite	0.00	0.00	0.00	16.00	16.00	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
Drill Rigs	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.94	21.88	21.88	21.88	21.88	21.88	21.88	21.88	21.88	21.88
Drilling Diesel Generator (Kenai)	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,666.60	1,666.60	1,666.60	1,666.60	1,666.60	1,666.60	1,666.60	1,666.60	1,666.60	1,666.60
Drilling Rental Generator	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	70.12	70.12	70.12	70.12	70.12	70.12	70.12	70.12	70.12	70.12
Drilling Pump	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05
Drilling Forklift	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.62	50.62	50.62	50.62	50.62	50.62	50.62	50.62	50.62	50.62
Drilling Manlift	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.77	39.77	39.77	39.77	39.77	39.77	39.77	39.77	39.77	39.77
Drilling Backhoe	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.19	8.19	8.19	8.19	8.19	8.19	8.19	8.19	8.19	8.19
Drilling Light Tower	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	165.93	165.93	165.93	165.93	165.93	165.93	165.93	165.93	165.93	165.93
Pavers	Onsite and Offsite [c]	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	8.97	8.97	0.00	0.00
Paving Equipment	Onsite and Offsite [c]	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	8.45	8.45	0.00	0.00
Paving Rollers	Onsite and Offsite [c]	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	114.45	114.45	0.00	0.00
Paving Tractor/Loader/Backhoe	Onsite and Offsite [c]	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	16.39	16.39	0.00	0.00
Electrical Generators	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	137.83	137.83	137.83	183.77	183.77	183.77	321.60	321.60	321.60	321.60	321.60	321.60
Concrete Pump Trucks	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	179.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,074.33	0.00	0.00	0.00
Diesel Welders	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	230.91	346.37	346.37	346.37	346.37	692.74	692.74	692.74	692.74	692.74	692.74
Compactor	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	43.36	43.36	43.36	43.36	43.36	43.36	43.36	43.36	43.36	43.36	43.36	43.36
Stake Truck	Onsite	0.00	0.00	0.00	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05
Water Truck (shared between 3 projects)	Onsite	0.00	0.00	0.00	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05
Air Compressor	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.53	49.53	49.53	49.53	49.53	49.53	49.53	49.53	99.06
Light Towers	Onsite	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
Heavy Lift Lattice boom Main Crane	Onsite	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
Heavy Lift Lattice boom Tail Crane	Onsite	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
Heavy lift Gantry Crane	Onsite	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
Total Monthly Onsite Emissions (lb/month)		**0.00**	**0.00**	**0.00**	**814.56**	**1,181.75**	**1,263.62**	**1,585.71**	**886.78**	**1,002.24**	**1,153.84**	**1,294.15**	**1,294.15**	**1,786.99**	**1,786.99**	**2,905.31**	**1,830.98**	**1,786.99**	**1,836.52**
Total Monthly Offsite Emissions (lb/month)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2,191.23**	**2,202.18**	**2,202.18**	**2,202.18**	**2,202.18**	**2,202.18**	**2,306.45**	**2,306.45**	**2,202.18**	**2,202.18**
Total Daily Onsite Emissions (lb/day) [b]		**0.00**	**0.00**	**0.00**	**35.42**	**51.38**	**54.94**	**68.94**	**38.56**	**43.58**	**50.17**	**56.27**	**56.27**	**77.70**	**77.70**	**126.32**	**79.61**	**77.70**	**79.85**
Total Daily Offsite Emissions (lb/day) [b]		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**95.27**	**95.75**	**95.75**	**95.75**	**95.75**	**95.75**	**100.28**	**100.28**	**95.75**	**95.75**
Total Project Emissions (tons)		**39.26**																	

BHE Renewables

Morton Bay Construction Emissions

Construction Equipment Emissions

April 2023

Construction Equipment NO_X Emissions from BHER Morton Bay Construction

Onsite Equipment	Equipment Location	2026						2027						2028					
		July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Excavator	Onsite	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
Backhoe	Onsite	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
10 Wheel Dump Truck	Onsite	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
Dozer	Onsite	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
Front End Loader	Onsite	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
150 Ton Hydraulic Crane	Onsite	0.00	28.06	28.06	28.06	28.06	28.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75 Ton Hydraulic Crane	Onsite	112.25	112.25	112.25	112.25	112.25	112.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35 Ton Hydraulic Crane	Onsite	196.44	196.44	196.44	196.44	196.44	196.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pile Driver	Onsite	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
Fork Lift	Onsite	12.97	12.97	12.97	12.97	12.97	12.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	Onsite	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
Drill Rigs	Offsite	21.88	21.88	32.83	32.83	32.83	32.83	32.83	32.83	21.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Diesel Generator (Kenai)	Offsite	1,666.60	1,666.60	1,666.60	1,666.60	1,666.60	1,666.60	1,666.60	1,666.60	1,666.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Rental Generator	Offsite	70.12	70.12	70.12	70.12	70.12	70.12	70.12	70.12	70.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Pump	Offsite	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Forklift	Offsite	50.62	50.62	50.62	50.62	50.62	50.62	50.62	50.62	50.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Manlift	Offsite	39.77	39.77	39.77	39.77	39.77	39.77	39.77	39.77	39.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Backhoe	Offsite	8.19	8.19	8.19	8.19	8.19	8.19	8.19	8.19	8.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Light Tower	Offsite	165.93	165.93	165.93	165.93	165.93	165.93	165.93	165.93	165.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pavers	Onsite and Offsite [c]	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
Paving Equipment	Onsite and Offsite [c]	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
Paving Rollers	Onsite and Offsite [c]	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
Paving Tractor/Loader/Backhoe	Onsite and Offsite [c]	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
Electrical Generators	Onsite	321.60	321.60	321.60	321.60	321.60	321.60	137.83	137.83	137.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump Trucks	Onsite	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
Diesel Welders	Onsite	692.74	692.74	692.74	692.74	692.74	692.74	230.91	230.91	173.18	115.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Compactor	Onsite	43.36	43.36	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
Stake Truck	Onsite	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Truck (shared between 3 projects)	Onsite	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05	179.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Air Compressor	Onsite	99.06	99.06	99.06	99.06	49.53	49.53	49.53	49.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Light Towers	Onsite	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
Heavy Lift Lattice boom Main Crane	Onsite	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
Heavy Lift Lattice boom Tail Crane	Onsite	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
Heavy lift Gantry Crane	Onsite	28.06	28.06	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
Total Monthly Onsite Emissions (lb/month)		**1,864.58**	**1,892.65**	**1,821.22**	**1,821.22**	**1,771.69**	**1,771.69**	**776.38**	**776.38**	**669.12**	**473.57**	**358.11**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Monthly Offsite Emissions (lb/month)		**2,202.18**	**2,202.18**	**2,213.12**	**2,213.12**	**2,213.12**	**2,213.12**	**2,213.12**	**2,213.12**	**2,202.18**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Daily Onsite Emissions (lb/day) [b]		**81.07**	**82.29**	**79.18**	**79.18**	**77.03**	**77.03**	**33.76**	**33.76**	**29.09**	**20.59**	**15.57**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Daily Offsite Emissions (lb/day) [b]		**95.75**	**95.75**	**96.22**	**96.22**	**96.22**	**96.22**	**96.22**	**96.22**	**95.75**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Project Emissions (tons)																			

BHE Renewables

Morton Bay Construction Emissions

Construction Equipment Emissions

April 2023

Construction Equipment SO_X Emissions from BHER Morton Bay Construction

Onsite Equipment	Equipment Location	SO_X Emissions (lb/month) [a, b]																	
		2024												2025					
		January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Excavator	Onsite	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Backhoe	Onsite	0.00	0.00	0.00	0.31	0.31	0.31	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 Wheel Dump Truck	Onsite	0.00	0.00	0.00	1.41	2.83	2.83	2.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dozer	Onsite	0.00	0.00	0.00	0.73	0.73	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
Front End Loader	Onsite	0.00	0.00	0.00	0.00	0.00	0.27	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150 Ton Hydraulic Crane	Onsite	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
75 Ton Hydraulic Crane	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.05	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10
35 Ton Hydraulic Crane	Onsite	0.00	0.00	0.00	0.00	0.00	1.58	1.58	2.10	2.10	2.10	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68
Pile Driver	Onsite	0.00	0.00	0.00	0.51	0.68	0.68	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fork Lift	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	0.08	0.08	0.08	0.24	0.24	0.24	0.24	0.24	0.24
Grader	Onsite	0.00	0.00	0.00	0.30	0.30	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
Drill Rigs	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41
Drilling Diesel Generator (Kenai)	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.51	24.51	24.51	24.51	24.51	24.51	24.51	24.51	24.51	24.51
Drilling Rental Generator	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73
Drilling Pump	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41
Drilling Forklift	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Drilling Manlift	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Drilling Backhoe	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Drilling Light Tower	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33
Pavers	Onsite and Offsite [c]	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	0.17	0.17	0.00	0.00
Paving Equipment	Onsite and Offsite [c]	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	0.16	0.16	0.00	0.00
Paving Rollers	Onsite and Offsite [c]	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	0.23	0.23	0.00	0.00
Paving Tractor/Loader/Backhoe	Onsite and Offsite [c]	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	0.31	0.31	0.00	0.00
Electrical Generators	Onsite	0.00	0.00	0.00	0.00	0.00	0.25	0.25	0.25	0.33	0.33	0.33	0.33	0.58	0.58	0.58	0.58	0.58	0.58
Concrete Pump Trucks	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.24	0.00	0.00	0.00
Diesel Welders	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.62	0.93	0.93	0.93	0.93	1.85	1.85	1.85	1.85	1.85	1.85
Compactor	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Stake Truck	Onsite	0.00	0.00	0.00	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
Water Truck (shared between 3 projects)	Onsite	0.00	0.00	0.00	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
Air Compressor	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.26
Light Towers	Onsite	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
Heavy Lift Lattice boom Main Crane	Onsite	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
Heavy Lift Lattice boom Tail Crane	Onsite	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
Heavy lift Gantry Crane	Onsite	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
Total Monthly Onsite Emissions (lb/month)		**0.00**	**0.00**	**0.00**	**4.68**	**6.26**	**7.15**	**8.12**	**4.56**	**4.86**	**6.13**	**8.76**	**8.76**	**10.10**	**10.10**	**14.59**	**10.35**	**10.10**	**10.23**
Total Monthly Offsite Emissions (lb/month)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**28.37**	**28.57**	**28.57**	**28.57**	**28.57**	**28.57**	**29.17**	**29.17**	**28.57**	**28.57**
Total Daily Onsite Emissions (lb/day) [b]		**0.00**	**0.00**	**0.00**	**0.20**	**0.27**	**0.31**	**0.35**	**0.20**	**0.21**	**0.27**	**0.38**	**0.38**	**0.44**	**0.44**	**0.63**	**0.45**	**0.44**	**0.44**
Total Daily Offsite Emissions (lb/day) [b]		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.23**	**1.24**	**1.24**	**1.24**	**1.24**	**1.24**	**1.27**	**1.27**	**1.24**	**1.24**
Total Project Emissions (tons)		**0.37**																	

BHE Renewables

Morton Bay Construction Emissions

Construction Equipment Emissions

April 2023

Construction Equipment SO_X Emissions from BHER Morton Bay Construction

Onsite Equipment	Equipment Location	2026																	
		July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Excavator	Onsite	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
Backhoe	Onsite	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
10 Wheel Dump Truck	Onsite	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
Dozer	Onsite	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
Front End Loader	Onsite	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
150 Ton Hydraulic Crane	Onsite	0.00	0.53	0.53	0.53	0.53	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75 Ton Hydraulic Crane	Onsite	2.10	2.10	2.10	2.10	2.10	2.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35 Ton Hydraulic Crane	Onsite	3.68	3.68	3.68	3.68	3.68	3.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pile Driver	Onsite	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
Fork Lift	Onsite	0.24	0.24	0.24	0.24	0.24	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	Onsite	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
Drill Rigs	Offsite	0.41	0.41	0.61	0.61	0.61	0.61	0.61	0.61	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Diesel Generator (Kenai)	Offsite	24.51	24.51	24.51	24.51	24.51	24.51	24.51	24.51	24.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Rental Generator	Offsite	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Pump	Offsite	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Forklift	Offsite	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Manlift	Offsite	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Backhoe	Offsite	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Light Tower	Offsite	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pavers	Onsite and Offsite [c]	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
Paving Equipment	Onsite and Offsite [c]	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
Paving Rollers	Onsite and Offsite [c]	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
Paving Tractor/Loader/Backhoe	Onsite and Offsite [c]	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
Electrical Generators	Onsite	0.58	0.58	0.58	0.58	0.58	0.58	0.25	0.25	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump Trucks	Onsite	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
Diesel Welders	Onsite	1.85	1.85	1.85	1.85	1.85	1.85	0.62	0.62	0.46	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Compactor	Onsite	0.09	0.09	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
Stake Truck	Onsite	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Truck (shared between 3 projects)	Onsite	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Air Compressor	Onsite	0.26	0.26	0.26	0.26	0.13	0.13	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Light Towers	Onsite	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
Heavy Lift Lattice boom Main Crane	Onsite	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
Heavy Lift Lattice boom Tail Crane	Onsite	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
Heavy lift Gantry Crane	Onsite	0.53	0.53	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
Total Monthly Onsite Emissions (lb/month)		**10.76**	**11.28**	**10.66**	**10.66**	**10.53**	**10.53**	**2.41**	**2.41**	**2.13**	**1.72**	**1.41**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Monthly Offsite Emissions (lb/month)		**28.57**	**28.57**	**28.77**	**28.77**	**28.77**	**28.77**	**28.77**	**28.77**	**28.57**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Daily Onsite Emissions (lb/day) [b]		**0.47**	**0.49**	**0.46**	**0.46**	**0.46**	**0.46**	**0.10**	**0.10**	**0.09**	**0.07**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Daily Offsite Emissions (lb/day) [b]		**1.24**	**1.24**	**1.25**	**1.25**	**1.25**	**1.25**	**1.25**	**1.25**	**1.24**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Project Emissions (tons)																			

BHE Renewables

Morton Bay Construction Emissions

Construction Equipment Emissions

April 2023

Construction Equipment PM_{10} Emissions from BHER Morton Bay Construction

Onsite Equipment	Equipment Location	PM_{10} Emissions (lb/month) [a, b]																	
		2024												2025					
		January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Excavator	Onsite	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Backhoe	Onsite	0.00	0.00	0.00	0.63	0.63	0.63	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 Wheel Dump Truck	Onsite	0.00	0.00	0.00	12.84	25.68	25.68	25.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dozer	Onsite	0.00	0.00	0.00	1.49	1.49	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
Front End Loader	Onsite	0.00	0.00	0.00	0.00	0.00	0.55	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150 Ton Hydraulic Crane	Onsite	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
75 Ton Hydraulic Crane	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.16	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32
35 Ton Hydraulic Crane	Onsite	0.00	0.00	0.00	0.00	0.00	3.24	3.24	4.32	4.32	4.32	7.56	7.56	7.56	7.56	7.56	7.56	7.56	7.56
Pile Driver	Onsite	0.00	0.00	0.00	1.05	1.40	1.40	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fork Lift	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.17	0.17	0.17	0.17	0.50	0.50	0.50	0.50	0.50	0.50
Grader	Onsite	0.00	0.00	0.00	0.62	0.62	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
Drill Rigs	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Drilling Diesel Generator (Kenai)	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	497.32	497.32	497.32	497.32	497.32	497.32	497.32	497.32	497.32	497.32
Drilling Rental Generator	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40
Drilling Pump	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28
Drilling Forklift	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95
Drilling Manlift	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Drilling Backhoe	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32
Drilling Light Tower	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
Pavers	Onsite and Offsite [c]	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	0.34	0.34	0.00	0.00
Paving Equipment	Onsite and Offsite [c]	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	0.32	0.32	0.00	0.00
Paving Rollers	Onsite and Offsite [c]	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	0.42	0.42	0.00	0.00
Paving Tractor/Loader/Backhoe	Onsite and Offsite [c]	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	0.63	0.63	0.00	0.00
Electrical Generators	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	5.67	5.67	5.67	7.56	7.56	7.56	13.24	13.24	13.24	13.24	13.24	13.24
Concrete Pump Trucks	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	6.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	38.51	0.00	0.00	0.00
Diesel Welders	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	1.26	1.26	1.26	1.26	2.52	2.52	2.52	2.52	2.52	2.52
Compactor	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69
Stake Truck	Onsite	0.00	0.00	0.00	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42
Water Truck (shared between 3 projects)	Onsite	0.00	0.00	0.00	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42
Air Compressor	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.36
Light Towers	Onsite	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
Heavy Lift Lattice boom Main Crane	Onsite	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
Heavy Lift Lattice boom Tail Crane	Onsite	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
Heavy lift Gantry Crane	Onsite	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
Total Monthly Onsite Emissions (lb/month)		**0.00**	**0.00**	**0.00**	**29.46**	**42.65**	**44.47**	**58.11**	**25.53**	**25.95**	**30.18**	**35.57**	**35.57**	**42.84**	**42.84**	**81.86**	**43.35**	**42.84**	**43.02**
Total Monthly Offsite Emissions (lb/month)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**509.44**	**509.86**	**509.86**	**509.86**	**509.86**	**509.86**	**511.06**	**511.06**	**509.86**	**509.86**
Total Daily Onsite Emissions (lb/day) [b]		**0.00**	**0.00**	**0.00**	**1.28**	**1.85**	**1.93**	**2.53**	**1.11**	**1.13**	**1.31**	**1.55**	**1.55**	**1.86**	**1.86**	**3.56**	**1.88**	**1.86**	**1.87**
Total Daily Offsite Emissions (lb/day) [b]		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**22.15**	**22.17**	**22.17**	**22.17**	**22.17**	**22.17**	**22.22**	**22.22**	**22.17**	**22.17**
Total Project Emissions (tons)		**5.33**																	

BHE Renewables

Morton Bay Construction Emissions

Construction Equipment Emissions

April 2023

Construction Equipment PM_{10} Emissions from BHER Morton Bay Construction

Onsite Equipment	Equipment Location	2026												2027					
		July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Excavator	Onsite	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
Backhoe	Onsite	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
10 Wheel Dump Truck	Onsite	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
Dozer	Onsite	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
Front End Loader	Onsite	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
150 Ton Hydraulic Crane	Onsite	0.00	1.08	1.08	1.08	1.08	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75 Ton Hydraulic Crane	Onsite	4.32	4.32	4.32	4.32	4.32	4.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35 Ton Hydraulic Crane	Onsite	7.56	7.56	7.56	7.56	7.56	7.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pile Driver	Onsite	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
Fork Lift	Onsite	0.50	0.50	0.50	0.50	0.50	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	Onsite	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
Drill Rigs	Offsite	0.84	0.84	1.26	1.26	1.26	1.26	1.26	1.26	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Diesel Generator (Kenai)	Offsite	497.32	497.32	497.32	497.32	497.32	497.32	497.32	497.32	497.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Rental Generator	Offsite	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Pump	Offsite	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Forklift	Offsite	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Manlift	Offsite	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Backhoe	Offsite	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Light Tower	Offsite	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pavers	Onsite and Offsite [c]	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
Paving Equipment	Onsite and Offsite [c]	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
Paving Rollers	Onsite and Offsite [c]	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
Paving Tractor/Loader/Backhoe	Onsite and Offsite [c]	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
Electrical Generators	Onsite	13.24	13.24	13.24	13.24	13.24	13.24	5.67	5.67	5.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump Trucks	Onsite	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
Diesel Welders	Onsite	2.52	2.52	2.52	2.52	2.52	2.52	0.84	0.84	0.63	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Compactor	Onsite	1.69	1.69	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
Stake Truck	Onsite	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Truck (shared between 3 projects)	Onsite	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Air Compressor	Onsite	0.36	0.36	0.36	0.36	0.18	0.18	0.18	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Light Towers	Onsite	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
Heavy Lift Lattice boom Main Crane	Onsite	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
Heavy Lift Lattice boom Tail Crane	Onsite	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
Heavy lift Gantry Crane	Onsite	1.08	1.08	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
Total Monthly Onsite Emissions (lb/month)		**44.10**	**45.18**	**42.40**	**42.40**	**42.22**	**42.22**	**19.53**	**19.53**	**19.14**	**13.26**	**12.84**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Monthly Offsite Emissions (lb/month)		**509.86**	**509.86**	**510.28**	**510.28**	**510.28**	**510.28**	**510.28**	**510.28**	**509.86**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Daily Onsite Emissions (lb/day) [b]		**1.92**	**1.96**	**1.84**	**1.84**	**1.84**	**1.84**	**0.85**	**0.85**	**0.83**	**0.58**	**0.56**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Daily Offsite Emissions (lb/day) [b]		**22.17**	**22.17**	**22.19**	**22.19**	**22.19**	**22.19**	**22.19**	**22.19**	**22.17**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Project Emissions (tons)																			

BHE Renewables

Morton Bay Construction Emissions

Construction Equipment Emissions

April 2023

Construction Equipment $PM_{2.5}$ Emissions from BHER Morton Bay Construction

Onsite Equipment	Equipment Location	$PM_{2.5}$ Emissions (lb/month) [a, b]																	
		2024												2025					
		January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Excavator	Onsite	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Backhoe	Onsite	0.00	0.00	0.00	0.63	0.63	0.63	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 Wheel Dump Truck	Onsite	0.00	0.00	0.00	11.81	23.62	23.62	23.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dozer	Onsite	0.00	0.00	0.00	1.49	1.49	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
Front End Loader	Onsite	0.00	0.00	0.00	0.00	0.00	0.55	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150 Ton Hydraulic Crane	Onsite	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
75 Ton Hydraulic Crane	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.16	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32
35 Ton Hydraulic Crane	Onsite	0.00	0.00	0.00	0.00	0.00	3.24	3.24	4.32	4.32	4.32	7.56	7.56	7.56	7.56	7.56	7.56	7.56	7.56
Pile Driver	Onsite	0.00	0.00	0.00	1.05	1.40	1.40	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fork Lift	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.17	0.17	0.17	0.17	0.50	0.50	0.50	0.50	0.50	0.50
Grader	Onsite	0.00	0.00	0.00	0.62	0.62	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
Drill Rigs	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Drilling Diesel Generator (Kenai)	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	497.32	497.32	497.32	497.32	497.32	497.32	497.32	497.32	497.32	497.32
Drilling Rental Generator	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40
Drilling Pump	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28
Drilling Forklift	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95
Drilling Manlift	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Drilling Backhoe	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32
Drilling Light Tower	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
Pavers	Onsite and Offsite [c]	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	0.34	0.34	0.00	0.00
Paving Equipment	Onsite and Offsite [c]	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	0.32	0.32	0.00	0.00
Paving Rollers	Onsite and Offsite [c]	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	0.42	0.42	0.00	0.00
Paving Tractor/Loader/Backhoe	Onsite and Offsite [c]	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	0.63	0.63	0.00	0.00
Electrical Generators	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	5.22	5.22	5.22	6.96	6.96	6.96	12.18	12.18	12.18	12.18	12.18	12.18
Concrete Pump Trucks	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	5.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	35.43	0.00	0.00	0.00
Diesel Welders	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	1.26	1.26	1.26	1.26	2.52	2.52	2.52	2.52	2.52	2.52
Compactor	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56
Stake Truck	Onsite	0.00	0.00	0.00	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91
Water Truck (shared between 3 projects)	Onsite	0.00	0.00	0.00	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91
Air Compressor	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.36
Light Towers	Onsite	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
Heavy Lift Lattice boom Main Crane	Onsite	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
Heavy Lift Lattice boom Tail Crane	Onsite	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
Heavy lift Gantry Crane	Onsite	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
Total Monthly Onsite Emissions (lb/month)		**0.00**	**0.00**	**0.00**	**27.40**	**39.56**	**41.39**	**53.93**	**23.91**	**24.33**	**28.41**	**33.81**	**33.81**	**40.62**	**40.62**	**76.56**	**41.13**	**40.62**	**40.80**
Total Monthly Offsite Emissions (lb/month)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**509.44**	**509.86**	**509.86**	**509.86**	**509.86**	**509.86**	**511.06**	**511.06**	**509.86**	**509.86**
Total Daily Onsite Emissions (lb/day) [b]		**0.00**	**0.00**	**0.00**	**1.19**	**1.72**	**1.80**	**2.34**	**1.04**	**1.06**	**1.24**	**1.47**	**1.47**	**1.77**	**1.77**	**3.33**	**1.79**	**1.77**	**1.77**
Total Daily Offsite Emissions (lb/day) [b]		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**22.15**	**22.17**	**22.17**	**22.17**	**22.17**	**22.17**	**22.22**	**22.22**	**22.17**	**22.17**
Total Project Emissions (tons)		**5.30**																	

BHE Renewables

Morton Bay Construction Emissions

Construction Equipment Emissions

April 2023

Construction Equipment $PM_{2.5}$ Emissions from BHER Morton Bay Construction

Onsite Equipment	Equipment Location	2026																	
		July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Excavator	Onsite	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
Backhoe	Onsite	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
10 Wheel Dump Truck	Onsite	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
Dozer	Onsite	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
Front End Loader	Onsite	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
150 Ton Hydraulic Crane	Onsite	0.00	1.08	1.08	1.08	1.08	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75 Ton Hydraulic Crane	Onsite	4.32	4.32	4.32	4.32	4.32	4.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35 Ton Hydraulic Crane	Onsite	7.56	7.56	7.56	7.56	7.56	7.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pile Driver	Onsite	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
Fork Lift	Onsite	0.50	0.50	0.50	0.50	0.50	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	Onsite	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
Drill Rigs	Offsite	0.84	0.84	1.26	1.26	1.26	1.26	1.26	1.26	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Diesel Generator (Kenai)	Offsite	497.32	497.32	497.32	497.32	497.32	497.32	497.32	497.32	497.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Rental Generator	Offsite	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Pump	Offsite	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Forklift	Offsite	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Manlift	Offsite	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Backhoe	Offsite	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Light Tower	Offsite	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pavers	Onsite and Offsite [c]	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
Paving Equipment	Onsite and Offsite [c]	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
Paving Rollers	Onsite and Offsite [c]	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
Paving Tractor/Loader/Backhoe	Onsite and Offsite [c]	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
Electrical Generators	Onsite	12.18	12.18	12.18	12.18	12.18	12.18	5.22	5.22	5.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump Trucks	Onsite	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
Diesel Welders	Onsite	2.52	2.52	2.52	2.52	2.52	2.52	0.84	0.84	0.63	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Compactor	Onsite	1.56	1.56	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
Stake Truck	Onsite	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Truck (shared between 3 projects)	Onsite	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Air Compressor	Onsite	0.36	0.36	0.36	0.36	0.18	0.18	0.18	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Light Towers	Onsite	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
Heavy Lift Lattice boom Main Crane	Onsite	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
Heavy Lift Lattice boom Tail Crane	Onsite	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
Heavy lift Gantry Crane	Onsite	1.08	1.08	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
Total Monthly Onsite Emissions (lb/month)		**41.88**	**42.96**	**40.32**	**40.32**	**40.14**	**40.14**	**18.05**	**18.05**	**17.66**	**12.23**	**11.81**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Monthly Offsite Emissions (lb/month)		**509.86**	**509.86**	**510.28**	**510.28**	**510.28**	**510.28**	**510.28**	**510.28**	**509.86**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Daily Onsite Emissions (lb/day) [b]		**1.82**	**1.87**	**1.75**	**1.75**	**1.75**	**1.75**	**0.78**	**0.78**	**0.77**	**0.53**	**0.51**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Daily Offsite Emissions (lb/day) [b]		**22.17**	**22.17**	**22.19**	**22.19**	**22.19**	**22.19**	**22.19**	**22.19**	**22.17**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Project Emissions (tons)																			

BHE Renewables

Morton Bay Construction Emissions

Construction Equipment Emissions

April 2023

Construction Equipment CO_2 Emissions from BHER Morton Bay Construction

Onsite Equipment	Equipment Location	CO_2 Emissions (metric tons/month) [a, b]																	
		2024												2025					
		January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Excavator	Onsite	0.00	0.00	0.00	0.00	0.00	3.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Backhoe	Onsite	0.00	0.00	0.00	15.15	15.15	15.15	15.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 Wheel Dump Truck	Onsite	0.00	0.00	0.00	69.37	138.75	138.75	138.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dozer	Onsite	0.00	0.00	0.00	35.94	35.94	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
Front End Loader	Onsite	0.00	0.00	0.00	0.00	0.00	13.07	13.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150 Ton Hydraulic Crane	Onsite	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
75 Ton Hydraulic Crane	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	51.65	103.31	103.31	103.31	103.31	103.31	103.31	103.31	103.31
35 Ton Hydraulic Crane	Onsite	0.00	0.00	0.00	0.00	0.00	77.48	77.48	103.31	103.31	103.31	180.79	180.79	180.79	180.79	180.79	180.79	180.79	180.79
Pile Driver	Onsite	0.00	0.00	0.00	25.12	33.49	33.49	33.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fork Lift	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.98	3.98	3.98	3.98	3.98	11.93	11.93	11.93	11.93	11.93	11.93
Grader	Onsite	0.00	0.00	0.00	14.80	14.80	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
Drill Rigs	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.95	19.91	19.91	19.91	19.91	19.91	19.91	19.91	19.91	19.91
Drilling Diesel Generator (Kenai)	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	860.12	860.12	860.12	860.12	860.12	860.12	860.12	860.12	860.12	860.12
Drilling Rental Generator	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	60.75	60.75	60.75	60.75	60.75	60.75	60.75	60.75	60.75	60.75
Drilling Pump	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.32	14.32	14.32	14.32	14.32	14.32	14.32	14.32	14.32	14.32
Drilling Forklift	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	46.68	46.68	46.68	46.68	46.68	46.68	46.68	46.68	46.68	46.68
Drilling Manlift	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.85	3.85	3.85	3.85	3.85	3.85	3.85	3.85	3.85	3.85
Drilling Backhoe	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.58	7.58	7.58	7.58	7.58	7.58	7.58	7.58	7.58	7.58
Drilling Light Tower	Offsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.10	16.10	16.10	16.10	16.10	16.10	16.10	16.10	16.10	16.10
Pavers	Onsite and Offsite [c]	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	8.24	8.24	0.00	0.00
Paving Equipment	Onsite and Offsite [c]	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	7.78	7.78	0.00	0.00
Paving Rollers	Onsite and Offsite [c]	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	11.08	11.08	0.00	0.00
Paving Tractor/Loader/Backhoe	Onsite and Offsite [c]	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	15.15	15.15	0.00	0.00
Electrical Generators	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	8.13	8.13	8.13	10.83	10.83	10.83	18.96	18.96	18.96	18.96	18.96	18.96
Concrete Pump Trucks	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	34.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	208.12	0.00	0.00	0.00
Diesel Welders	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.65	32.47	32.47	32.47	32.47	64.94	64.94	64.94	64.94	64.94	64.94
Compactor	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70
Stake Truck	Onsite	0.00	0.00	0.00	34.69	34.69	34.69	34.69	34.69	34.69	34.69	34.69	34.69	34.69	34.69	34.69	34.69	34.69	34.69
Water Truck (shared between 3 projects)	Onsite	0.00	0.00	0.00	34.69	34.69	34.69	34.69	34.69	34.69	34.69	34.69	34.69	34.69	34.69	34.69	34.69	34.69	34.69
Air Compressor	Onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	9.29
Light Towers	Onsite	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
Heavy Lift Lattice boom Main Crane	Onsite	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
Heavy Lift Lattice boom Tail Crane	Onsite	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
Heavy lift Gantry Crane	Onsite	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
Total Monthly Onsite Emissions (metric tons/month)		**0.00**	**0.00**	**0.00**	**229.75**	**307.50**	**351.01**	**392.83**	**209.13**	**219.95**	**278.95**	**408.09**	**408.09**	**456.63**	**456.63**	**677.29**	**469.17**	**456.63**	**461.28**
Total Monthly Offsite Emissions (metric tons/month)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1,019.33**	**1,029.29**	**1,029.29**	**1,029.29**	**1,029.29**	**1,029.29**	**1,059.00**	**1,059.00**	**1,029.29**	**1,029.29**
Total Daily Onsite Emissions (metric tons/day) [b]		**0.00**	**0.00**	**0.00**	**9.99**	**13.37**	**15.26**	**17.08**	**9.09**	**9.56**	**12.13**	**17.74**	**17.74**	**19.85**	**19.85**	**29.45**	**20.40**	**19.85**	**20.06**
Total Daily Offsite Emissions (metric tons/day) [b]		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**44.32**	**44.75**	**44.75**	**44.75**	**44.75**	**44.75**	**46.04**	**46.04**	**44.75**	**44.75**
Total Project Emissions (metric tons)		**28,827.86**																	

BHE Renewables

Morton Bay Construction Emissions

Construction Equipment Emissions

April 2023

Construction Equipment CO_2 Emissions from BHER Morton Bay Construction

Onsite Equipment	Equipment Location	2026																	
		July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Excavator	Onsite	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
Backhoe	Onsite	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
10 Wheel Dump Truck	Onsite	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
Dozer	Onsite	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
Front End Loader	Onsite	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
150 Ton Hydraulic Crane	Onsite	0.00	25.83	25.83	25.83	25.83	25.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75 Ton Hydraulic Crane	Onsite	103.31	103.31	103.31	103.31	103.31	103.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35 Ton Hydraulic Crane	Onsite	180.79	180.79	180.79	180.79	180.79	180.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pile Driver	Onsite	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
Fork Lift	Onsite	11.93	11.93	11.93	11.93	11.93	11.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	Onsite	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
Drill Rigs	Offsite	19.91	19.91	29.86	29.86	29.86	29.86	29.86	29.86	19.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Diesel Generator (Kenai)	Offsite	860.12	860.12	860.12	860.12	860.12	860.12	860.12	860.12	860.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Rental Generator	Offsite	60.75	60.75	60.75	60.75	60.75	60.75	60.75	60.75	60.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Pump	Offsite	14.32	14.32	14.32	14.32	14.32	14.32	14.32	14.32	14.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Forklift	Offsite	46.68	46.68	46.68	46.68	46.68	46.68	46.68	46.68	46.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Manlift	Offsite	3.85	3.85	3.85	3.85	3.85	3.85	3.85	3.85	3.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Backhoe	Offsite	7.58	7.58	7.58	7.58	7.58	7.58	7.58	7.58	7.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drilling Light Tower	Offsite	16.10	16.10	16.10	16.10	16.10	16.10	16.10	16.10	16.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pavers	Onsite and Offsite [c]	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
Paving Equipment	Onsite and Offsite [c]	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
Paving Rollers	Onsite and Offsite [c]	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
Paving Tractor/Loader/Backhoe	Onsite and Offsite [c]	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
Electrical Generators	Onsite	18.96	18.96	18.96	18.96	18.96	18.96	8.13	8.13	8.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump Trucks	Onsite	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
Diesel Welders	Onsite	64.94	64.94	64.94	64.94	64.94	64.94	21.65	21.65	16.23	10.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Compactor	Onsite	2.70	2.70	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
Stake Truck	Onsite	34.69	34.69	34.69	34.69	34.69	34.69	34.69	34.69	34.69	34.69	34.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Truck (shared between 3 projects)	Onsite	34.69	34.69	34.69	34.69	34.69	34.69	34.69	34.69	34.69	34.69	34.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Air Compressor	Onsite	9.29	9.29	9.29	9.29	4.64	4.64	4.64	4.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Light Towers	Onsite	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
Heavy Lift Lattice boom Main Crane	Onsite	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
Heavy Lift Lattice boom Tail Crane	Onsite	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
Heavy lift Gantry Crane	Onsite	25.83	25.83	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
Total Monthly Onsite Emissions (metric tons/month)		**487.10**	**512.93**	**484.40**	**484.40**	**479.76**	**479.76**	**103.79**	**103.79**	**93.73**	**80.20**	**69.37**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Monthly Offsite Emissions (metric tons/month)		**1,029.29**	**1,029.29**	**1,039.24**	**1,039.24**	**1,039.24**	**1,039.24**	**1,039.24**	**1,039.24**	**1,029.29**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Daily Onsite Emissions (metric tons/day) [b]		**21.18**	**22.30**	**21.06**	**21.06**	**20.86**	**20.86**	**4.51**	**4.51**	**4.08**	**3.49**	**3.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Daily Offsite Emissions (metric tons/day) [b]		**44.75**	**44.75**	**45.18**	**45.18**	**45.18**	**45.18**	**45.18**	**45.18**	**44.75**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Project Emissions (metric tons)																			

BHE Renewables

Morton Bay Construction Emissions

Construction Equipment Emissions

April 2023

Construction Equipment N_2O Emissions from BHER Morton Bay Construction

Onsite Equipment	Equipment Location	N_2O Emissions (metric tons/month) [a, b]																	
		2024												2025					
		January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Excavator	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Backhoe	Onsite	0.00E+00	0.00E+00	0.00E+00	1.23E-04	1.23E-04	1.23E-04	1.23E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10 Wheel Dump Truck	Onsite	0.00E+00	0.00E+00	0.00E+00	5.63E-04	1.13E-03	1.13E-03	1.13E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dozer	Onsite	0.00E+00	0.00E+00	0.00E+00	2.92E-04	2.92E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Front End Loader	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.06E-04	1.06E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
150 Ton Hydraulic Crane	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
75 Ton Hydraulic Crane	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.19E-04	8.38E-04	8.38E-04	8.38E-04	8.38E-04	8.38E-04	8.38E-04	8.38E-04	8.38E-04
35 Ton Hydraulic Crane	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.29E-04	6.29E-04	8.38E-04	8.38E-04	8.38E-04	1.47E-03	1.47E-03	1.47E-03	1.47E-03	1.47E-03	1.47E-03	1.47E-03	1.47E-03
Pile Driver	Onsite	0.00E+00	0.00E+00	0.00E+00	2.04E-04	2.72E-04	2.72E-04	2.72E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fork Lift	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.23E-05	3.23E-05	3.23E-05	3.23E-05	3.23E-05	9.68E-05	9.68E-05	9.68E-05	9.68E-05	9.68E-05	9.68E-05
Grader	Onsite	0.00E+00	0.00E+00	0.00E+00	1.20E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Drill Rigs	Offsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.08E-05	1.62E-04	1.62E-04	1.62E-04	1.62E-04	1.62E-04	1.62E-04	1.62E-04	1.62E-04	1.62E-04
Drilling Diesel Generator (Kenai)	Offsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.98E-03	6.98E-03	6.98E-03	6.98E-03	6.98E-03	6.98E-03	6.98E-03	6.98E-03	6.98E-03	6.98E-03
Drilling Rental Generator	Offsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.93E-04	4.93E-04	4.93E-04	4.93E-04	4.93E-04	4.93E-04	4.93E-04	4.93E-04	4.93E-04	4.93E-04
Drilling Pump	Offsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.16E-04	1.16E-04	1.16E-04	1.16E-04	1.16E-04	1.16E-04	1.16E-04	1.16E-04	1.16E-04	1.16E-04
Drilling Forklift	Offsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.79E-04	3.79E-04	3.79E-04	3.79E-04	3.79E-04	3.79E-04	3.79E-04	3.79E-04	3.79E-04	3.79E-04
Drilling Manlift	Offsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.12E-05	3.12E-05	3.12E-05	3.12E-05	3.12E-05	3.12E-05	3.12E-05	3.12E-05	3.12E-05	3.12E-05
Drilling Backhoe	Offsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05
Drilling Light Tower	Offsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.31E-04	1.31E-04	1.31E-04	1.31E-04	1.31E-04	1.31E-04	1.31E-04	1.31E-04	1.31E-04	1.31E-04
Pavers	Onsite and Offsite [c]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.68E-05	6.68E-05	0.00E+00	0.00E+00
Paving Equipment	Onsite and Offsite [c]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.31E-05	6.31E-05	0.00E+00	0.00E+00
Paving Rollers	Onsite and Offsite [c]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.99E-05	8.99E-05	0.00E+00	0.00E+00
Paving Tractor/Loader/Backhoe	Onsite and Offsite [c]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.23E-04	1.23E-04	0.00E+00	0.00E+00
Electrical Generators	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.59E-05	6.59E-05	6.59E-05	8.79E-05	8.79E-05	8.79E-05	1.54E-04	1.54E-04	1.54E-04	1.54E-04	1.54E-04	1.54E-04
Concrete Pump Trucks	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.81E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.69E-03	0.00E+00	0.00E+00	0.00E+00
Diesel Welders	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.76E-04	2.63E-04	2.63E-04	2.63E-04	2.63E-04	5.27E-04	5.27E-04	5.27E-04	5.27E-04	5.27E-04	5.27E-04
Compactor	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.19E-05	2.19E-05	2.19E-05	2.19E-05	2.19E-05	2.19E-05	2.19E-05	2.19E-05	2.19E-05	2.19E-05	2.19E-05	2.19E-05
Stake Truck	Onsite	0.00E+00	0.00E+00	0.00E+00	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04
Water Truck (shared between 3 projects)	Onsite	0.00E+00	0.00E+00	0.00E+00	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04
Air Compressor	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.77E-05	3.77E-05	3.77E-05	3.77E-05	3.77E-05	3.77E-05	3.77E-05	3.77E-05	7.53E-05
Light Towers	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Heavy Lift Lattice boom Main Crane	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Heavy Lift Lattice boom Tail Crane	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Heavy lift Gantry Crane	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total Monthly Onsite Emissions (metric tons/month)		**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**	**0.01**	**0.00**	**0.00**	**0.00**
Total Monthly Offsite Emissions (metric tons/month)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**
Total Daily Onsite Emissions (metric tons/day) [b]		**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**
Total Daily Offsite Emissions (metric tons/day) [b]		**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**
Total Project Emissions (metric tons)		**0.23**																	

BHE Renewables Morton Bay

Construction Emissions

Construction Equipment Emissions

April 2023

Construction Equipment N_2O Emissions from BHER Morton Bay Construction

Onsite Equipment	Equipment Location	2026						2026											
		July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Excavator	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Backhoe	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10 Wheel Dump Truck	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dozer	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Front End Loader	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
150 Ton Hydraulic Crane	Onsite	0.00E+00	2.10E-04	2.10E-04	2.10E-04	2.10E-04	2.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
75 Ton Hydraulic Crane	Onsite	8.38E-04	8.38E-04	8.38E-04	8.38E-04	8.38E-04	8.38E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
35 Ton Hydraulic Crane	Onsite	1.47E-03	1.47E-03	1.47E-03	1.47E-03	1.47E-03	1.47E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Pile Driver	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fork Lift	Onsite	9.68E-05	9.68E-05	9.68E-05	9.68E-05	9.68E-05	9.68E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Grader	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Drill Rigs	Offsite	1.62E-04	1.62E-04	2.42E-04	2.42E-04	2.42E-04	2.42E-04	2.42E-04	2.42E-04	1.62E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Drilling Diesel Generator (Kenai)	Offsite	6.98E-03	6.98E-03	6.98E-03	6.98E-03	6.98E-03	6.98E-03	6.98E-03	6.98E-03	6.98E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Drilling Rental Generator	Offsite	4.93E-04	4.93E-04	4.93E-04	4.93E-04	4.93E-04	4.93E-04	4.93E-04	4.93E-04	4.93E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Drilling Pump	Offsite	1.16E-04	1.16E-04	1.16E-04	1.16E-04	1.16E-04	1.16E-04	1.16E-04	1.16E-04	1.16E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Drilling Forklift	Offsite	3.79E-04	3.79E-04	3.79E-04	3.79E-04	3.79E-04	3.79E-04	3.79E-04	3.79E-04	3.79E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Drilling Manlift	Offsite	3.12E-05	3.12E-05	3.12E-05	3.12E-05	3.12E-05	3.12E-05	3.12E-05	3.12E-05	3.12E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Drilling Backhoe	Offsite	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Drilling Light Tower	Offsite	1.31E-04	1.31E-04	1.31E-04	1.31E-04	1.31E-04	1.31E-04	1.31E-04	1.31E-04	1.31E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Pavers	Onsite and Offsite [c]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Paving Equipment	Onsite and Offsite [c]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Paving Rollers	Onsite and Offsite [c]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Paving Tractor/Loader/Backhoe	Onsite and Offsite [c]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Electrical Generators	Onsite	1.54E-04	1.54E-04	1.54E-04	1.54E-04	1.54E-04	1.54E-04	6.59E-05	6.59E-05	6.59E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Concrete Pump Trucks	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Diesel Welders	Onsite	5.27E-04	5.27E-04	5.27E-04	5.27E-04	5.27E-04	5.27E-04	1.76E-04	1.76E-04	1.32E-04	8.78E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Compactor	Onsite	2.19E-05	2.19E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Stake Truck	Onsite	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Water Truck (shared between 3 projects)	Onsite	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Air Compressor	Onsite	7.53E-05	7.53E-05	7.53E-05	7.53E-05	3.77E-05	3.77E-05	3.77E-05	3.77E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Light Towers	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Heavy Lift Lattice boom Main Crane	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Heavy Lift Lattice boom Tail Crane	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Heavy lift Gantry Crane	Onsite	2.10E-04	2.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total Monthly Onsite Emissions (metric tons/month)		**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**
Total Monthly Offsite Emissions (metric tons/month)		**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Daily Onsite Emissions (metric tons/day) [b]		**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**
Total Daily Offsite Emissions (metric tons/day) [b]		**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**
Total Project Emissions (metric tons)																			

BHE Renewables

Morton Bay Construction Emissions

Construction Equipment Emissions

April 2023

Construction Equipment CH_4 Emissions from BHER Morton Bay Construction

Onsite Equipment	Equipment Location	CH_4 Emissions (metric tons/month) [a, b]																	
		2024												2025					
		January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Excavator	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Backhoe	Onsite	0.00E+00	0.00E+00	0.00E+00	6.15E-04	6.15E-04	6.15E-04	6.15E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10 Wheel Dump Truck	Onsite	0.00E+00	0.00E+00	0.00E+00	2.81E-03	5.63E-03	5.63E-03	5.63E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dozer	Onsite	0.00E+00	0.00E+00	0.00E+00	1.46E-03	1.46E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Front End Loader	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.30E-04	5.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
150 Ton Hydraulic Crane	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
75 Ton Hydraulic Crane	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.10E-03	4.19E-03	4.19E-03	4.19E-03	4.19E-03	4.19E-03	4.19E-03	4.19E-03	4.19E-03
35 Ton Hydraulic Crane	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.14E-03	3.14E-03	4.19E-03	4.19E-03	4.19E-03	7.33E-03	7.33E-03	7.33E-03	7.33E-03	7.33E-03	7.33E-03	7.33E-03	7.33E-03
Pile Driver	Onsite	0.00E+00	0.00E+00	0.00E+00	1.02E-03	1.36E-03	1.36E-03	1.36E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fork Lift	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.61E-04	1.61E-04	1.61E-04	1.61E-04	1.61E-04	4.84E-04	4.84E-04	4.84E-04	4.84E-04	4.84E-04	4.84E-04
Grader	Onsite	0.00E+00	0.00E+00	0.00E+00	6.00E-04	6.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Drill Rigs	Offsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.04E-04	8.08E-04	8.08E-04	8.08E-04	8.08E-04	8.08E-04	8.08E-04	8.08E-04	8.08E-04	8.08E-04
Drilling Diesel Generator (Kenai)	Offsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.49E-02	3.49E-02	3.49E-02	3.49E-02	3.49E-02	3.49E-02	3.49E-02	3.49E-02	3.49E-02	3.49E-02
Drilling Rental Generator	Offsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.46E-03	2.46E-03	2.46E-03	2.46E-03	2.46E-03	2.46E-03	2.46E-03	2.46E-03	2.46E-03	2.46E-03
Drilling Pump	Offsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.81E-04	5.81E-04	5.81E-04	5.81E-04	5.81E-04	5.81E-04	5.81E-04	5.81E-04	5.81E-04	5.81E-04
Drilling Forklift	Offsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.89E-03	1.89E-03	1.89E-03	1.89E-03	1.89E-03	1.89E-03	1.89E-03	1.89E-03	1.89E-03	1.89E-03
Drilling Manlift	Offsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.56E-04	1.56E-04	1.56E-04	1.56E-04	1.56E-04	1.56E-04	1.56E-04	1.56E-04	1.56E-04	1.56E-04
Drilling Backhoe	Offsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.07E-04	3.07E-04	3.07E-04	3.07E-04	3.07E-04	3.07E-04	3.07E-04	3.07E-04	3.07E-04	3.07E-04
Drilling Light Tower	Offsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.53E-04	6.53E-04	6.53E-04	6.53E-04	6.53E-04	6.53E-04	6.53E-04	6.53E-04	6.53E-04	6.53E-04
Pavers	Onsite and Offsite [c]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.34E-04	3.34E-04	0.00E+00	0.00E+00
Paving Equipment	Onsite and Offsite [c]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.16E-04	3.16E-04	0.00E+00	0.00E+00
Paving Rollers	Onsite and Offsite [c]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.49E-04	4.49E-04	0.00E+00	0.00E+00
Paving Tractor/Loader/Backhoe	Onsite and Offsite [c]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.15E-04	6.15E-04	0.00E+00	0.00E+00
Electrical Generators	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.30E-04	3.30E-04	3.30E-04	4.39E-04	4.39E-04	4.39E-04	7.69E-04	7.69E-04	7.69E-04	7.69E-04	7.69E-04	7.69E-04
Concrete Pump Trucks	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.41E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.44E-03	0.00E+00	0.00E+00	0.00E+00
Diesel Welders	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.78E-04	1.32E-03	1.32E-03	1.32E-03	1.32E-03	2.63E-03	2.63E-03	2.63E-03	2.63E-03	2.63E-03	2.63E-03
Compactor	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.09E-04	1.09E-04	1.09E-04	1.09E-04	1.09E-04	1.09E-04	1.09E-04	1.09E-04	1.09E-04	1.09E-04	1.09E-04	1.09E-04
Stake Truck	Onsite	0.00E+00	0.00E+00	0.00E+00	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03
Water Truck (shared between 3 projects)	Onsite	0.00E+00	0.00E+00	0.00E+00	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03
Air Compressor	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.88E-04	1.88E-04	1.88E-04	1.88E-04	1.88E-04	1.88E-04	1.88E-04	1.88E-04	3.77E-04
Light Towers	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Heavy Lift Lattice boom Main Crane	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Heavy Lift Lattice boom Tail Crane	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Heavy lift Gantry Crane	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total Monthly Onsite Emissions (metric tons/month)		**0.00**	**0.00**	**0.00**	**0.01**	**0.01**	**0.01**	**0.02**	**0.01**	**0.01**	**0.01**	**0.02**	**0.02**	**0.02**	**0.02**	**0.03**	**0.02**	**0.02**	**0.02**
Total Monthly Offsite Emissions (metric tons/month)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**
Total Daily Onsite Emissions (metric tons/day) [b]		**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**
Total Daily Offsite Emissions (metric tons/day) [b]		**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**
Total Project Emissions (metric tons)		**1.17**																	

Notes:

[a] Per information provided by the Applicant's engineering contractor, work hours per day are as follows: 20

[b] Per information provided by the Applicant's engineering contractor, work days per month are as follows: 23

[c] Paving emissions will occur both onsite and offsite. Daily and monthly emissions are apportioned based upon the amount of paved area onsite and offsite, respectively.

BHE Renewables Morton Bay

Construction Emissions

Construction Equipment Emissions

April 2023

Construction Equipment CH_4 Emissions from BHER Morton Bay Construction

Onsite Equipment	Equipment Location	2026						2027											
		July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Excavator	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Backhoe	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10 Wheel Dump Truck	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Dozer	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Front End Loader	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
150 Ton Hydraulic Crane	Onsite	0.00E+00	1.05E-03	1.05E-03	1.05E-03	1.05E-03	1.05E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
75 Ton Hydraulic Crane	Onsite	4.19E-03	4.19E-03	4.19E-03	4.19E-03	4.19E-03	4.19E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
35 Ton Hydraulic Crane	Onsite	7.33E-03	7.33E-03	7.33E-03	7.33E-03	7.33E-03	7.33E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Pile Driver	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fork Lift	Onsite	4.84E-04	4.84E-04	4.84E-04	4.84E-04	4.84E-04	4.84E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Grader	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Drill Rigs	Offsite	8.08E-04	8.08E-04	1.21E-03	1.21E-03	1.21E-03	1.21E-03	1.21E-03	1.21E-03	8.08E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Drilling Diesel Generator (Kenai)	Offsite	3.49E-02	3.49E-02	3.49E-02	3.49E-02	3.49E-02	3.49E-02	3.49E-02	3.49E-02	3.49E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Drilling Rental Generator	Offsite	2.46E-03	2.46E-03	2.46E-03	2.46E-03	2.46E-03	2.46E-03	2.46E-03	2.46E-03	2.46E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Drilling Pump	Offsite	5.81E-04	5.81E-04	5.81E-04	5.81E-04	5.81E-04	5.81E-04	5.81E-04	5.81E-04	5.81E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Drilling Forklift	Offsite	1.89E-03	1.89E-03	1.89E-03	1.89E-03	1.89E-03	1.89E-03	1.89E-03	1.89E-03	1.89E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Drilling Manlift	Offsite	1.56E-04	1.56E-04	1.56E-04	1.56E-04	1.56E-04	1.56E-04	1.56E-04	1.56E-04	1.56E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Drilling Backhoe	Offsite	3.07E-04	3.07E-04	3.07E-04	3.07E-04	3.07E-04	3.07E-04	3.07E-04	3.07E-04	3.07E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Drilling Light Tower	Offsite	6.53E-04	6.53E-04	6.53E-04	6.53E-04	6.53E-04	6.53E-04	6.53E-04	6.53E-04	6.53E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Pavers	Onsite and Offsite [c]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Paving Equipment	Onsite and Offsite [c]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Paving Rollers	Onsite and Offsite [c]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Paving Tractor/Loader/Backhoe	Onsite and Offsite [c]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Electrical Generators	Onsite	7.69E-04	7.69E-04	7.69E-04	7.69E-04	7.69E-04	7.69E-04	3.30E-04	3.30E-04	3.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Concrete Pump Trucks	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Diesel Welders	Onsite	2.63E-03	2.63E-03	2.63E-03	2.63E-03	2.63E-03	2.63E-03	8.78E-04	8.78E-04	6.59E-04	4.39E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Compactor	Onsite	1.09E-04	1.09E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Stake Truck	Onsite	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Water Truck (shared between 3 projects)	Onsite	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	1.41E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Air Compressor	Onsite	3.77E-04	3.77E-04	3.77E-04	3.77E-04	1.88E-04	1.88E-04	1.88E-04	1.88E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Light Towers	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Heavy Lift Lattice boom Main Crane	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Heavy Lift Lattice boom Tail Crane	Onsite	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Heavy lift Gantry Crane	Onsite	1.05E-03	1.05E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total Monthly Onsite Emissions (metric tons/month)		**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Monthly Offsite Emissions (metric tons/month)		**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Daily Onsite Emissions (metric tons/day) [b]		**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**
Total Daily Offsite Emissions (metric tons/day) [b]		**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**
Total Project Emissions (metric tons)																			

Notes:

[a] Per information provided by the Applicant's engineering contractor, work hours per day are as follows: 20

[b] Per information provided by the Applicant's engineering contractor, work days per month are as follows: 23

[c] Paving emissions will occur both onsite and offsite. Daily and monthly emissions are apportioned based upon the amount of paved area onsite and offsite, respectively.

BHE Renewables

Morton Bay Construction Emissions
Onsite, Offroad Vehicle Exhaust Emissions
April 2023

Onsite Vehicle Exhaust CO Emissions from BHER Morton Bay Construction

Vehicle Type	CO Emissions (lb/day) [a]																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Pickup Truck	0.0E+00	0.0E+00	0.0E+00	7.7E-02	7.7E-02	7.7E-02	7.7E-02	7.7E-02	7.7E-02	7.7E-02	7.7E-02	7.7E-02	7.7E-02	7.7E-02	7.7E-02	7.7E-02	7.7E-02	7.7E-02
Average Daily Onsite Emissions (lb/day) [b]	**0.0E+00**	**0.0E+00**	**0.0E+00**	**7.7E-02**	**7.7E-02**	**7.7E-02**	**7.7E-02**	**7.7E-02**	**7.7E-02**	**7.7E-02**	**7.7E-02**	**7.7E-02**	**7.7E-02**	**7.7E-02**	**7.7E-02**	**7.7E-02**	**7.7E-02**	**7.7E-02**
Vehicle Type	**CO Emissions (lb/month) [c]**																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Pickup Truck	0.0E+00	0.0E+00	0.0E+00	1.8E+00	1.8E+00	1.8E+00	1.8E+00	1.8E+00	1.8E+00	1.8E+00	1.8E+00	1.8E+00	1.8E+00	1.8E+00	1.8E+00	1.8E+00	1.8E+00	1.8E+00
Total Monthly Onsite Emissions (lb/month)	**0.0E+00**	**0.0E+00**	**0.0E+00**	**1.8E+00**	**1.8E+00**	**1.8E+00**	**1.8E+00**	**1.8E+00**	**1.8E+00**	**1.8E+00**	**1.8E+00**	**1.8E+00**	**1.8E+00**	**1.8E+00**	**1.8E+00**	**1.8E+00**	**1.8E+00**	**1.8E+00**
Total Project Emissions (tons)	**2.3E-02**																	

Onsite Vehicle Exhaust VOC Emissions from BHER Morton Bay Construction

Vehicle Type	VOC Emissions (lb/day) [a]																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Pickup Truck	0.0E+00	0.0E+00	0.0E+00	2.4E-03	2.4E-03	2.4E-03	2.4E-03	2.4E-03	2.4E-03	2.4E-03	2.4E-03	2.4E-03	2.4E-03	2.4E-03	2.4E-03	2.4E-03	2.4E-03	2.4E-03
Average Daily Onsite Emissions (lb/day) [b]	**0.0E+00**	**0.0E+00**	**0.0E+00**	**2.4E-03**	**2.4E-03**	**2.4E-03**	**2.4E-03**	**2.4E-03**	**2.4E-03**	**2.4E-03**	**2.4E-03**	**2.4E-03**	**2.4E-03**	**2.4E-03**	**2.4E-03**	**2.4E-03**	**2.4E-03**	**2.4E-03**
Vehicle Type	**VOC Emissions (lb/month) [c]**																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Pickup Truck	0.0E+00	0.0E+00	0.0E+00	5.5E-02	5.5E-02	5.5E-02	5.5E-02	5.5E-02	5.5E-02	5.5E-02	5.5E-02	5.5E-02	5.5E-02	5.5E-02	5.5E-02	5.5E-02	5.5E-02	5.5E-02
Total Monthly Onsite Emissions (lb/month)	**0.0E+00**	**0.0E+00**	**0.0E+00**	**5.5E-02**	**5.5E-02**	**5.5E-02**	**5.5E-02**	**5.5E-02**	**5.5E-02**	**5.5E-02**	**5.5E-02**	**5.5E-02**	**5.5E-02**	**5.5E-02**	**5.5E-02**	**5.5E-02**	**5.5E-02**	**5.5E-02**
Total Project Emissions (tons)	**7.2E-04**																	

Onsite Vehicle Exhaust SO_X Emissions from BHER Morton Bay Construction

Vehicle Type	SO_X Emissions (lb/day) [a]																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Pickup Truck	0.0E+00	0.0E+00	0.0E+00	1.3E-04	1.3E-04	1.3E-04	1.3E-04	1.3E-04	1.3E-04	1.3E-04	1.3E-04	1.3E-04	1.3E-04	1.3E-04	1.3E-04	1.3E-04	1.3E-04	1.3E-04
Average Daily Onsite Emissions (lb/day) [b]	**0.0E+00**	**0.0E+00**	**0.0E+00**	**1.3E-04**	**1.3E-04**	**1.3E-04**	**1.3E-04**	**1.3E-04**	**1.3E-04**	**1.3E-04**	**1.3E-04**	**1.3E-04**	**1.3E-04**	**1.3E-04**	**1.3E-04**	**1.3E-04**	**1.3E-04**	**1.3E-04**
Vehicle Type	**SO_X Emissions (lb/month) [c]**																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Pickup Truck	0.0E+00	0.0E+00	0.0E+00	2.9E-03	2.9E-03	2.9E-03	2.9E-03	2.9E-03	2.9E-03	2.9E-03	2.9E-03	2.9E-03	2.9E-03	2.9E-03	2.9E-03	2.9E-03	2.9E-03	2.9E-03
Total Monthly Onsite Emissions (lb/month)	**0.0E+00**	**0.0E+00**	**0.0E+00**	**2.9E-03**	**2.9E-03**	**2.9E-03**	**2.9E-03**	**2.9E-03**	**2.9E-03**	**2.9E-03**	**2.9E-03**	**2.9E-03**	**2.9E-03**	**2.9E-03**	**2.9E-03**	**2.9E-03**	**2.9E-03**	**2.9E-03**
Total Project Emissions (tons)	**3.8E-05**																	

Onsite Vehicle Exhaust NO_X Emissions from BHER Morton Bay Construction

Vehicle Type	NO_X Emissions (lb/day) [a]																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Pickup Truck	0.0E+00	0.0E+00	0.0E+00	4.7E-03	4.7E-03	4.7E-03	4.7E-03	4.7E-03	4.7E-03	4.7E-03	4.7E-03	4.7E-03	4.7E-03	4.7E-03	4.7E-03	4.7E-03	4.7E-03	4.7E-03
Average Daily Onsite Emissions (lb/day) [b]	**0.0E+00**	**0.0E+00**	**0.0E+00**	**4.7E-03**	**4.7E-03**	**4.7E-03**	**4.7E-03**	**4.7E-03**	**4.7E-03**	**4.7E-03**	**4.7E-03**	**4.7E-03**	**4.7E-03**	**4.7E-03**	**4.7E-03**	**4.7E-03**	**4.7E-03**	**4.7E-03**
Vehicle Type	**NO_X Emissions (lb/month) [c]**																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Pickup Truck	0.0E+00	0.0E+00	0.0E+00	1.1E-01	1.1E-01	1.1E-01	1.1E-01	1.1E-01	1.1E-01	1.1E-01	1.1E-01	1.1E-01	1.1E-01	1.1E-01	1.1E-01	1.1E-01	1.1E-01	1.1E-01
Total Monthly Onsite Emissions (lb/month)	**0.0E+00**	**0.0E+00**	**0.0E+00**	**1.1E-01**	**1.1E-01**	**1.1E-01**	**1.1E-01**	**1.1E-01**	**1.1E-01**	**1.1E-01**	**1.1E-01**	**1.1E-01**	**1.1E-01**	**1.1E-01**	**1.1E-01**	**1.1E-01**	**1.1E-01**	**1.1E-01**
Total Project Emissions (tons)	**1.4E-03**																	

Onsite Vehicle Exhaust and Vehicle Wear PM_{10} Emissions from BHER Morton Bay Construction

Vehicle Type	PM_{10} Emissions (lb/day) [a, d]																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Pickup Truck	0.0E+00	0.0E+00	0.0E+00	4.1E-04	4.1E-04	4.1E-04	4.1E-04	4.1E-04	4.1E-04	4.1E-04	4.1E-04	4.1E-04	4.1E-04	4.1E-04	4.1E-04	4.1E-04	4.1E-04	4.1E-04
Average Daily Onsite Emissions (lb/day) [b]	**0.0E+00**	**0.0E+00**	**0.0E+00**	**4.1E-04**	**4.1E-04**	**4.1E-04**	**4.1E-04**	**4.1E-04**	**4.1E-04**	**4.1E-04**	**4.1E-04**	**4.1E-04**	**4.1E-04**	**4.1E-04**	**4.1E-04**	**4.1E-04**	**4.1E-04**	**4.1E-04**
Vehicle Type	**PM_{10} Emissions (lb/month) [c, d]**																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Pickup Truck	0.0E+00	0.0E+00	0.0E+00	9.5E-03	9.5E-03	9.5E-03	9.5E-03	9.5E-03	9.5E-03	9.5E-03	9.5E-03	9.5E-03	9.5E-03	9.5E-03	9.5E-03	9.5E-03	9.5E-03	9.5E-03
Total Monthly Onsite Emissions (lb/month)	**0.0E+00**	**0.0E+00**	**0.0E+00**	**9.5E-03**	**9.5E-03**	**9.5E-03**	**9.5E-03**	**9.5E-03**	**9.5E-03**	**9.5E-03**	**9.5E-03**	**9.5E-03**	**9.5E-03**	**9.5E-03**	**9.5E-03**	**9.5E-03**	**9.5E-03**	**9.5E-03**
Total Project Emissions (tons)	**1.2E-04**																	

BHE Renewables

Morton Bay Construction Emissions
Onsite, Offroad Vehicle Exhaust Emissions
April 2023

Onsite Vehicle Exhaust CO Emissions from BHER Morton Bay Construction

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Pickup Truck	7.7E-02	7.7E-02	7.7E-02	7.7E-02	7.7E-02	7.7E-02	7.7E-02	7.7E-02	7.7E-02	7.7E-02	7.7E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Average Daily Onsite Emissions (lb/day) [b]	**7.7E-02**	**7.7E-02**	**7.7E-02**	**7.7E-02**	**7.7E-02**	**7.7E-02**	**7.7E-02**	**7.7E-02**	**7.7E-02**	**7.7E-02**	**7.7E-02**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Pickup Truck	1.8E+00	1.8E+00	1.8E+00	1.8E+00	1.8E+00	1.8E+00	1.8E+00	1.8E+00	1.8E+00	1.8E+00	1.8E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total Monthly Onsite Emissions (lb/month)	**1.8E+00**	**1.8E+00**	**1.8E+00**	**1.8E+00**	**1.8E+00**	**1.8E+00**	**1.8E+00**	**1.8E+00**	**1.8E+00**	**1.8E+00**	**1.8E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**
Total Project Emissions (tons)																		

Onsite Vehicle Exhaust VOC Emissions from BHER Morton I

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Pickup Truck	2.4E-03	2.4E-03	2.4E-03	2.4E-03	2.4E-03	2.4E-03	2.4E-03	2.4E-03	2.4E-03	2.4E-03	2.4E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Average Daily Onsite Emissions (lb/day) [b]	**2.4E-03**	**2.4E-03**	**2.4E-03**	**2.4E-03**	**2.4E-03**	**2.4E-03**	**2.4E-03**	**2.4E-03**	**2.4E-03**	**2.4E-03**	**2.4E-03**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Pickup Truck	5.5E-02	5.5E-02	5.5E-02	5.5E-02	5.5E-02	5.5E-02	5.5E-02	5.5E-02	5.5E-02	5.5E-02	5.5E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total Monthly Onsite Emissions (lb/month)	**5.5E-02**	**5.5E-02**	**5.5E-02**	**5.5E-02**	**5.5E-02**	**5.5E-02**	**5.5E-02**	**5.5E-02**	**5.5E-02**	**5.5E-02**	**5.5E-02**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**
Total Project Emissions (tons)																		

Onsite Vehicle Exhaust SO_X Emissions from BHER Morton E

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Pickup Truck	1.3E-04	1.3E-04	1.3E-04	1.3E-04	1.3E-04	1.3E-04	1.3E-04	1.3E-04	1.3E-04	1.3E-04	1.3E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Average Daily Onsite Emissions (lb/day) [b]	**1.3E-04**	**1.3E-04**	**1.3E-04**	**1.3E-04**	**1.3E-04**	**1.3E-04**	**1.3E-04**	**1.3E-04**	**1.3E-04**	**1.3E-04**	**1.3E-04**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Pickup Truck	2.9E-03	2.9E-03	2.9E-03	2.9E-03	2.9E-03	2.9E-03	2.9E-03	2.9E-03	2.9E-03	2.9E-03	2.9E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total Monthly Onsite Emissions (lb/month)	**2.9E-03**	**2.9E-03**	**2.9E-03**	**2.9E-03**	**2.9E-03**	**2.9E-03**	**2.9E-03**	**2.9E-03**	**2.9E-03**	**2.9E-03**	**2.9E-03**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**
Total Project Emissions (tons)																		

Onsite Vehicle Exhaust NO_X Emissions from BHER Morton E

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Pickup Truck	4.7E-03	4.7E-03	4.7E-03	4.7E-03	4.7E-03	4.7E-03	4.7E-03	4.7E-03	4.7E-03	4.7E-03	4.7E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Average Daily Onsite Emissions (lb/day) [b]	**4.7E-03**	**4.7E-03**	**4.7E-03**	**4.7E-03**	**4.7E-03**	**4.7E-03**	**4.7E-03**	**4.7E-03**	**4.7E-03**	**4.7E-03**	**4.7E-03**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Pickup Truck	1.1E-01	1.1E-01	1.1E-01	1.1E-01	1.1E-01	1.1E-01	1.1E-01	1.1E-01	1.1E-01	1.1E-01	1.1E-01	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total Monthly Onsite Emissions (lb/month)	**1.1E-01**	**1.1E-01**	**1.1E-01**	**1.1E-01**	**1.1E-01**	**1.1E-01**	**1.1E-01**	**1.1E-01**	**1.1E-01**	**1.1E-01**	**1.1E-01**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**
Total Project Emissions (tons)																		

Onsite Vehicle Exhaust and Vehicle Wear PM_{10} Emissions fr

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Pickup Truck	4.1E-04	4.1E-04	4.1E-04	4.1E-04	4.1E-04	4.1E-04	4.1E-04	4.1E-04	4.1E-04	4.1E-04	4.1E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Average Daily Onsite Emissions (lb/day) [b]	**4.1E-04**	**4.1E-04**	**4.1E-04**	**4.1E-04**	**4.1E-04**	**4.1E-04**	**4.1E-04**	**4.1E-04**	**4.1E-04**	**4.1E-04**	**4.1E-04**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Pickup Truck	9.5E-03	9.5E-03	9.5E-03	9.5E-03	9.5E-03	9.5E-03	9.5E-03	9.5E-03	9.5E-03	9.5E-03	9.5E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total Monthly Onsite Emissions (lb/month)	**9.5E-03**	**9.5E-03**	**9.5E-03**	**9.5E-03**	**9.5E-03**	**9.5E-03**	**9.5E-03**	**9.5E-03**	**9.5E-03**	**9.5E-03**	**9.5E-03**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**
Total Project Emissions (tons)																		

BHE Renewables

Morton Bay Construction Emissions
Onsite, Offroad Vehicle Exhaust Emissions
April 2023

Onsite Vehicle Exhaust and Vehicle Wear $PM_{2.5}$ Emissions from BHER Morton Bay Construction

Vehicle Type	$PM_{2.5}$ Emissions (lb/day) [a, d]																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Pickup Truck	0.0E+00	0.0E+00	0.0E+00	2.2E-04	2.2E-04	2.2E-04	2.2E-04	2.2E-04	2.2E-04	2.2E-04	2.2E-04	2.2E-04	2.2E-04	2.2E-04	2.2E-04	2.2E-04	2.2E-04	2.2E-04
Average Daily Onsite Emissions (lb/day) [b]	**0.0E+00**	**0.0E+00**	**0.0E+00**	**2.2E-04**	**2.2E-04**	**2.2E-04**	**2.2E-04**	**2.2E-04**	**2.2E-04**	**2.2E-04**	**2.2E-04**	**2.2E-04**	**2.2E-04**	**2.2E-04**	**2.2E-04**	**2.2E-04**	**2.2E-04**	**2.2E-04**
Vehicle Type	**$PM_{2.5}$ Emissions (lb/month) [c, d]**																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Pickup Truck	0.0E+00	0.0E+00	0.0E+00	5.1E-03	5.1E-03	5.1E-03	5.1E-03	5.1E-03	5.1E-03	5.1E-03	5.1E-03	5.1E-03	5.1E-03	5.1E-03	5.1E-03	5.1E-03	5.1E-03	5.1E-03
Total Monthly Onsite Emissions (lb/month)	**0.0E+00**	**0.0E+00**	**0.0E+00**	**5.1E-03**	**5.1E-03**	**5.1E-03**	**5.1E-03**	**5.1E-03**	**5.1E-03**	**5.1E-03**	**5.1E-03**	**5.1E-03**	**5.1E-03**	**5.1E-03**	**5.1E-03**	**5.1E-03**	**5.1E-03**	**5.1E-03**
Total Project Emissions (tons)	**6.6E-05**																	

Onsite Vehicle Exhaust CO_2 Emissions from BHER Morton Bay Construction

Vehicle Type	CO_2 Emissions (metric tons/day) [a]																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Pickup Truck	0.0E+00	0.0E+00	0.0E+00	5.7E-03	5.7E-03	5.7E-03	5.7E-03	5.7E-03	5.7E-03	5.7E-03	5.7E-03	5.7E-03	5.7E-03	5.7E-03	5.7E-03	5.7E-03	5.7E-03	5.7E-03
Average Daily Onsite Emissions (metric tons/day) [b]	**0.0E+00**	**0.0E+00**	**0.0E+00**	**5.7E-03**	**5.7E-03**	**5.7E-03**	**5.7E-03**	**5.7E-03**	**5.7E-03**	**5.7E-03**	**5.7E-03**	**5.7E-03**	**5.7E-03**	**5.7E-03**	**5.7E-03**	**5.7E-03**	**5.7E-03**	**5.7E-03**
Vehicle Type	**CO_2 Emissions (metric tons/month) [c]**																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Pickup Truck	0.0E+00	0.0E+00	0.0E+00	1.3E-01	1.3E-01	1.3E-01	1.3E-01	1.3E-01	1.3E-01	1.3E-01	1.3E-01	1.3E-01	1.3E-01	1.3E-01	1.3E-01	1.3E-01	1.3E-01	1.3E-01
Total Monthly Onsite Emissions (metric tons/month)	**0.0E+00**	**0.0E+00**	**0.0E+00**	**1.3E-01**	**1.3E-01**	**1.3E-01**	**1.3E-01**	**1.3E-01**	**1.3E-01**	**1.3E-01**	**1.3E-01**	**1.3E-01**	**1.3E-01**	**1.3E-01**	**1.3E-01**	**1.3E-01**	**1.3E-01**	**1.3E-01**
Total Project Emissions (metric tons)	**3.4E+00**																	

Onsite Vehicle Exhaust N_2O Emissions from BHER Morton Bay Construction

Vehicle Type	N_2O Emissions (metric tons/day) [a]																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Pickup Truck	0.0E+00	0.0E+00	0.0E+00	1.1E-08	1.1E-08	1.1E-08	1.1E-08	1.1E-08	1.1E-08	1.1E-08	1.1E-08	1.1E-08	1.1E-08	1.1E-08	1.1E-08	1.1E-08	1.1E-08	1.1E-08
Average Daily Onsite Emissions (metric tons/day) [b]	**0.0E+00**	**0.0E+00**	**0.0E+00**	**1.1E-08**	**1.1E-08**	**1.1E-08**	**1.1E-08**	**1.1E-08**	**1.1E-08**	**1.1E-08**	**1.1E-08**	**1.1E-08**	**1.1E-08**	**1.1E-08**	**1.1E-08**	**1.1E-08**	**1.1E-08**	**1.1E-08**
Vehicle Type	**N_2O Emissions (metric tons/month) [c]**																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Pickup Truck	0.0E+00	0.0E+00	0.0E+00	2.5E-07	2.5E-07	2.5E-07	2.5E-07	2.5E-07	2.5E-07	2.5E-07	2.5E-07	2.5E-07	2.5E-07	2.5E-07	2.5E-07	2.5E-07	2.5E-07	2.5E-07
Total Monthly Onsite Emissions (metric tons/month)	**0.0E+00**	**0.0E+00**	**0.0E+00**	**2.5E-07**	**2.5E-07**	**2.5E-07**	**2.5E-07**	**2.5E-07**	**2.5E-07**	**2.5E-07**	**2.5E-07**	**2.5E-07**	**2.5E-07**	**2.5E-07**	**2.5E-07**	**2.5E-07**	**2.5E-07**	**2.5E-07**
Total Project Emissions (metric tons)	**6.4E-06**																	

Onsite Vehicle Exhaust CH_4 Emissions from BHER Morton Bay Construction

Vehicle Type	CH_4 Emissions (metric tons/day) [a]																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Pickup Truck	0.0E+00	0.0E+00	0.0E+00	2.4E-07	2.4E-07	2.4E-07	2.4E-07	2.4E-07	2.4E-07	2.4E-07	2.4E-07	2.4E-07	2.4E-07	2.4E-07	2.4E-07	2.4E-07	2.4E-07	2.4E-07
Average Daily Onsite Emissions (metric tons/day) [b]	**0.0E+00**	**0.0E+00**	**0.0E+00**	**2.4E-07**	**2.4E-07**	**2.4E-07**	**2.4E-07**	**2.4E-07**	**2.4E-07**	**2.4E-07**	**2.4E-07**	**2.4E-07**	**2.4E-07**	**2.4E-07**	**2.4E-07**	**2.4E-07**	**2.4E-07**	**2.4E-07**
Vehicle Type	**CH_4 Emissions (metric tons/month) [c]**																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Pickup Truck	0.0E+00	0.0E+00	0.0E+00	5.5E-06	5.5E-06	5.5E-06	5.5E-06	5.5E-06	5.5E-06	5.5E-06	5.5E-06	5.5E-06	5.5E-06	5.5E-06	5.5E-06	5.5E-06	5.5E-06	5.5E-06
Total Monthly Onsite Emissions (metric tons/month)	**0.0E+00**	**0.0E+00**	**0.0E+00**	**5.5E-06**	**5.5E-06**	**5.5E-06**	**5.5E-06**	**5.5E-06**	**5.5E-06**	**5.5E-06**	**5.5E-06**	**5.5E-06**	**5.5E-06**	**5.5E-06**	**5.5E-06**	**5.5E-06**	**5.5E-06**	**5.5E-06**
Total Project Emissions (metric tons)	**1.4E-04**																	

Notes:
[a] Based on the dimensions of the project site and anticipated activity, daily onsite trip lengths were assumed to be 5 miles
[b] Daily transportation emissions are presented as average daily emissions.
[c] Per information provided by the Applicant's engineering contractor, work days per month are as follows: 23
[d] PM_{10} and $PM_{2.5}$ Emissions include emissions from exhaust and tire and brake wear.

BHE Renewables Morton Bay

Construction Emissions
Onsite, Offroad Vehicle Exhaust Emissions
April 2023

Onsite Vehicle Exhaust and Vehicle Wear $PM_{2.5}$ Emissions fr

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Pickup Truck	2.2E-04	2.2E-04	2.2E-04	2.2E-04	2.2E-04	2.2E-04	2.2E-04	2.2E-04	2.2E-04	2.2E-04	2.2E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Average Daily Onsite Emissions (lb/day) [b]	**2.2E-04**	**2.2E-04**	**2.2E-04**	**2.2E-04**	**2.2E-04**	**2.2E-04**	**2.2E-04**	**2.2E-04**	**2.2E-04**	**2.2E-04**	**2.2E-04**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Pickup Truck	5.1E-03	5.1E-03	5.1E-03	5.1E-03	5.1E-03	5.1E-03	5.1E-03	5.1E-03	5.1E-03	5.1E-03	5.1E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total Monthly Onsite Emissions (lb/month)	**5.1E-03**	**5.1E-03**	**5.1E-03**	**5.1E-03**	**5.1E-03**	**5.1E-03**	**5.1E-03**	**5.1E-03**	**5.1E-03**	**5.1E-03**	**5.1E-03**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**
Total Project Emissions (tons)																		

Onsite Vehicle Exhaust CO_2 Emissions from BHER Morton E

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Pickup Truck	5.7E-03	5.7E-03	5.7E-03	5.7E-03	5.7E-03	5.7E-03	5.7E-03	5.7E-03	5.7E-03	5.7E-03	5.7E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Average Daily Onsite Emissions (metric tons/day) [b]	**5.7E-03**	**5.7E-03**	**5.7E-03**	**5.7E-03**	**5.7E-03**	**5.7E-03**	**5.7E-03**	**5.7E-03**	**5.7E-03**	**5.7E-03**	**5.7E-03**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Pickup Truck	1.3E-01	1.3E-01	1.3E-01	1.3E-01	1.3E-01	1.3E-01	1.3E-01	1.3E-01	1.3E-01	1.3E-01	1.3E-01	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total Monthly Onsite Emissions (metric tons/month)	**1.3E-01**	**1.3E-01**	**1.3E-01**	**1.3E-01**	**1.3E-01**	**1.3E-01**	**1.3E-01**	**1.3E-01**	**1.3E-01**	**1.3E-01**	**1.3E-01**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**
Total Project Emissions (metric tons)																		

Onsite Vehicle Exhaust N_2O Emissions from BHER Morton E

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Pickup Truck	1.1E-08	1.1E-08	1.1E-08	1.1E-08	1.1E-08	1.1E-08	1.1E-08	1.1E-08	1.1E-08	1.1E-08	1.1E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Average Daily Onsite Emissions (metric tons/day) [b]	**1.1E-08**	**1.1E-08**	**1.1E-08**	**1.1E-08**	**1.1E-08**	**1.1E-08**	**1.1E-08**	**1.1E-08**	**1.1E-08**	**1.1E-08**	**1.1E-08**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Pickup Truck	2.5E-07	2.5E-07	2.5E-07	2.5E-07	2.5E-07	2.5E-07	2.5E-07	2.5E-07	2.5E-07	2.5E-07	2.5E-07	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total Monthly Onsite Emissions (metric tons/month)	**2.5E-07**	**2.5E-07**	**2.5E-07**	**2.5E-07**	**2.5E-07**	**2.5E-07**	**2.5E-07**	**2.5E-07**	**2.5E-07**	**2.5E-07**	**2.5E-07**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**
Total Project Emissions (metric tons)																		

Onsite Vehicle Exhaust CH_4 Emissions from BHER Morton E

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Pickup Truck	2.4E-07	2.4E-07	2.4E-07	2.4E-07	2.4E-07	2.4E-07	2.4E-07	2.4E-07	2.4E-07	2.4E-07	2.4E-07	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Average Daily Onsite Emissions (metric tons/day) [b]	**2.4E-07**	**2.4E-07**	**2.4E-07**	**2.4E-07**	**2.4E-07**	**2.4E-07**	**2.4E-07**	**2.4E-07**	**2.4E-07**	**2.4E-07**	**2.4E-07**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Pickup Truck	5.5E-06	5.5E-06	5.5E-06	5.5E-06	5.5E-06	5.5E-06	5.5E-06	5.5E-06	5.5E-06	5.5E-06	5.5E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total Monthly Onsite Emissions (metric tons/month)	**5.5E-06**	**5.5E-06**	**5.5E-06**	**5.5E-06**	**5.5E-06**	**5.5E-06**	**5.5E-06**	**5.5E-06**	**5.5E-06**	**5.5E-06**	**5.5E-06**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**	**0.0E+00**
Total Project Emissions (metric tons)																		

Notes:
[a] Based on the dimensions of the project site and anticipated act
[b] Daily transportation emissions are presented as average daily e
[c] Per information provided by the Applicant's engineering contrac
[d] PM_{10} and $PM_{2.5}$ Emissions include emissions from exhaust and

BHE Renewables

Morton Bay Construction Emissions

Emissions from Fugitive Dust and Other Offroad Activities

April 2023

Grading and Truck Dumping/Loading Activity Levels for BHER Morton Bay

Source	Monthly Activity Levels																			
	2024												2025							
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August
Graded Area (acres) [a]	0	0	0	55	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Soil Imported/Exported (cubic yards) [b]	0	0	0	158,462	158,462	158,462	158,462	0	0	0	0	0	0	0	0	0	0	0	0	0

Notes:

[a] Graded area provided by the Applicant's engineering contractor. This disturbance was distributed amongst the months in which graders are utilized and also based on the number of graders present each month.

[b] Soil Imported/Exported provided by the Applicant's engineering contractor. Assumed the imports/exports and associated loading/dumping activity are equally distributed amongst the months in which front end loaders, excavators, and backhoes are utilized either

Soil activities during Demolition and Construction

	Area (acres)	Imported/Exported Soil (cubic yards)
Demolition		
Total Disturbed Area for Grading	34.37	--
Cut/Export Material	--	100
Import/Fill Material	--	100
Construction		
Total Disturbed Area for Grading	75.27	--
Cut/Export Material	--	461,103
Import/Fill Material	--	172,546

Onsite Vehicle Fugitive PM_{10} Emissions from Unpaved Roads During BHER Morton Bay Construction

Vehicle Type	Fugitive PM_{10} Emissions (lb/day) [a]																			
	2024												2025							
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August
Onsite Pickup Truck [b]	0.00	0.00	0.00	3.78	3.78	3.78	3.78	3.78	3.78	3.78	3.78	3.78	3.78	3.78	3.78	3.78	3.78	3.78	3.78	3.78
Total Daily Onsite Emissions (lb/day)	**0.00**	**0.00**	**0.00**	**3.78**	**3.78**	**3.78**	**3.78**	**3.78**	**3.78**	**3.78**	**3.78**	**3.78**	**3.78**	**3.78**	**3.78**	**3.78**	**3.78**	**3.78**	**3.78**	**3.78**
Vehicle Type	Fugitive PM_{10} Emissions (lb/month) [a]																			
	2024												2025							
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August
Onsite Pickup Truck [b, c]	0.00	0.00	0.00	86.86	86.86	86.86	86.86	86.86	86.86	86.86	86.86	86.86	86.86	86.86	86.86	86.86	86.86	86.86	86.86	86.86
Total Monthly Onsite Emissions (lb/month)	**0.00**	**0.00**	**0.00**	**86.86**	**86.86**	**86.86**	**86.86**	**86.86**	**86.86**	**86.86**	**86.86**	**86.86**	**86.86**	**86.86**	**86.86**	**86.86**	**86.86**	**86.86**	**86.86**	**86.86**
Total Onsite Project Emissions (tons)	**1.13**																			

Notes:

[a] It is assumed that all onsite driving is on unpaved roads, to be conservative. Emissions based on the controlled unpaved road emission factor for PM_{10}.

[b] Based on the dimensions of the project site and anticipated activity, daily onsite trip lengths were assumed to be: 5 miles

[c] Per information provided by the Applicant's engineering contractor, work days per month are as follows: 23 days

Onsite Vehicle Fugitive $PM_{2.5}$ Emissions from Unpaved Roads During BHER Morton Bay Construction

Vehicle Type	Fugitive $PM_{2.5}$ Emissions (lb/day) [a]																			
	2024												2025							
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August
Onsite Pickup Truck [b]	0.00	0.00	0.00	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38
Total Daily Onsite Emissions (lb/day)	**0.00**	**0.00**	**0.00**	**0.38**	**0.38**	**0.38**	**0.38**	**0.38**	**0.38**	**0.38**	**0.38**	**0.38**	**0.38**	**0.38**	**0.38**	**0.38**	**0.38**	**0.38**	**0.38**	**0.38**
Vehicle Type	Fugitive $PM_{2.5}$ Emissions (lb/month) [a]																			
	2024												2025							
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August
Onsite Pickup Truck [b, c]	0.00	0.00	0.00	8.65	8.65	8.65	8.65	8.65	8.65	8.65	8.65	8.65	8.65	8.65	8.65	8.65	8.65	8.65	8.65	8.65
Total Monthly Onsite Emissions (lb/month)	**0.00**	**0.00**	**0.00**	**8.65**	**8.65**	**8.65**	**8.65**	**8.65**	**8.65**	**8.65**	**8.65**	**8.65**	**8.65**	**8.65**	**8.65**	**8.65**	**8.65**	**8.65**	**8.65**	**8.65**
Total Onsite Project Emissions (tons)	**0.11**																			

Notes:

[a] It is assumed that all onsite driving is on unpaved roads, to be

[b] Based on the dimensions of the project site and anticipated activity, daily onsite trip lengths were assumed to be: 5 miles

[c] Per information provided by the Applicant's engineering contractor, work days per month are as follows: 23 days

BHE Renewables

Morton Bay Construction Emissions
Emissions from Fugitive Dust and Other Offroad Activities
April 2023

Grading and Truck Dumping/Loading Activity Levels for BHER Morton Bay

Source	2026															
	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Graded Area (acres) [a]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Soil Imported/Exported (cubic yards) [b]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Notes:

[a] Graded area provided by the Applicant's engineering contractor. This disturbance was distributed amongst the months in which graders are utilized and also based on the number of graders present each month.

[b] Soil Imported/Exported provided by the Applicant's engineering contractor. Assumed the imports/exports and associated loading/dumping activity are equally distributed amongst the months in which front end loaders, excavators, and backhoes are utilized either

Soil activities during Demolition and Construction

Demolition	
Total Disturbed Area for Grading	
Cut/Export Material	
Import/Fill Material	
Construction	
Total Disturbed Area for Grading	
Cut/Export Material	
Import/Fill Material	

Onsite Vehicle Fugitive PM_{10} Emissions from Unpaved Roads During

Vehicle Type	2026															
	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Pickup Truck [b]	3.78	3.78	3.78	3.78	3.78	3.78	3.78	3.78	3.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Daily Onsite Emissions (lb/day)	**3.78**	**3.78**	**3.78**	**3.78**	**3.78**	**3.78**	**3.78**	**3.78**	**3.78**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Vehicle Type	2026															
	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Pickup Truck [b, c]	86.86	86.86	86.86	86.86	86.86	86.86	86.86	86.86	86.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Monthly Onsite Emissions (lb/month)	**86.86**	**86.86**	**86.86**	**86.86**	**86.86**	**86.86**	**86.86**	**86.86**	**86.86**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Onsite Project Emissions (tons)																

Notes:

[a] It is assumed that all onsite driving is on unpaved roads, to be conservative. Emissions based on the controlled unpaved road emission factor for PM_{10}.

[b] Based on the dimensions of the project site and anticipated activity, daily onsite trip lengths were assumed to be:

[c] Per information provided by the Applicant's engineering contractor, work days per month are as follows:

Onsite Vehicle Fugitive $PM_{2.5}$ Emissions from Unpaved Roads During

Vehicle Type	2026															
	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Pickup Truck [b]	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Daily Onsite Emissions (lb/day)	**0.38**	**0.38**	**0.38**	**0.38**	**0.38**	**0.38**	**0.38**	**0.38**	**0.38**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Vehicle Type	2026															
	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Pickup Truck [b, c]	8.65	8.65	8.65	8.65	8.65	8.65	8.65	8.65	8.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Monthly Onsite Emissions (lb/month)	**8.65**	**8.65**	**8.65**	**8.65**	**8.65**	**8.65**	**8.65**	**8.65**	**8.65**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Onsite Project Emissions (tons)																

Notes:

[a] It is assumed that all onsite driving is on unpaved roads, to be

[b] Based on the dimensions of the project site and anticipated activity, daily onsite trip lengths were assumed to be:

[c] Per information provided by the Applicant's engineering contractor, work days per month are as follows:

BHE Renewables

Morton Bay Construction Emissions

Emissions from Fugitive Dust and Other Offroad Activities

April 2023

Grading and Truck Dumping/Loading Fugitive PM_{10} Emissions from BHER Morton Bay Construction

Construction Activity	Fugitive PM_{10} Emissions (lb/day) [a]																			
	2024												2025							
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August
Grading [b, c]	0.00	0.00	0.00	0.66	0.66	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
Truck Dumping/Loading [d, e]	0.00	0.00	0.00	1.37	1.37	1.37	1.37	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
Total Daily Onsite Emissions (lb/day)	**0.00**	**0.00**	**0.00**	**2.03**	**2.03**	**1.37**	**1.37**	**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**

Construction Activity	Fugitive PM_{10} Emissions (lb/month) [a]																			
	2024												2025							
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August
Grading	0.00	0.00	0.00	15.12	15.12	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
Truck Dumping/Loading	0.00	0.00	0.00	31.50	31.50	31.50	31.50	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
Total Monthly Onsite Emissions (lb/month)	**0.00**	**0.00**	**0.00**	**46.62**	**46.62**	**31.50**	**31.50**	**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**
Total Project Emissions (tons)	**0.08**																			

Notes:

[a] Per information provided by the Applicant's engineering contractor, work days per month are as follows: 23 days

[b] Grading emissions based on the controlled emission factor for PM_{10}.

[c] Per Section 4.4.1 of Appendix C of the *CalEEMod User's Guide* (ICF 2022), the following blade width was assumed for grading equipment: 12 ft

[d] Assume that soil is dumped from or loaded to the truck the same month it is imported or exported, respectively.

[e] Per Section 4.4.3 of Appendix C of the *CalEEMod User's Guide* (ICF 2022), the following conversion factor was used: 1.26 tons/cubic yard

Grading and Truck Dumping/Loading Fugitive $PM_{2.5}$ Emissions from BHER Morton Bay Construction

Construction Activity	Fugitive $PM_{2.5}$ Emissions (lb/day) [a]																			
	2024												2025							
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August
Grading [b, c]	0.00	0.00	0.00	0.07	0.07	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
Truck Dumping/Loading [d, e]	0.00	0.00	0.00	0.21	0.21	0.21	0.21	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
Total Daily Onsite Emissions (lb/day)	**0.00**	**0.00**	**0.00**	**0.28**	**0.28**	**0.21**	**0.21**	**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**

Construction Activity	Fugitive $PM_{2.5}$ Emissions (lb/month) [a]																			
	2024												2025							
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August
Grading	0.00	0.00	0.00	1.63	1.63	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
Truck Dumping/Loading	0.00	0.00	0.00	4.77	4.77	4.77	4.77	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
Total Monthly Onsite Emissions (lb/month)	**0.00**	**0.00**	**0.00**	**6.40**	**6.40**	**4.77**	**4.77**	**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**
Total Project Emissions (tons)	**0.01**																			

Notes:

[a] Per information provided by the Applicant's engineering contractor, work days per month are as follows: 23 days

[b] Grading emissions based on the controlled emission factor for $PM_{2.5}$.

[c] Per Section 4.4.1 of Appendix C of the *CalEEMod User's Guide* (ICF 2022), the following blade width was assumed for grading equipment: 12 ft

[d] Assume that soil is dumped from or loaded to the truck the same month it is imported or exported, respectively.

[e] Per Section 4.4.3 of Appendix C of the *CalEEMod User's Guide* (ICF 2022), the following conversion factor was used: 1.26 tons/cubic yard

BHE Renewables

Morton Bay Construction Emissions

Emissions from Fugitive Dust and Other Offroad Activities

April 2023

Grading and Truck Dumping/Loading Fugitive PM_{10} Emissions from

Construction Activity	2026															
	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Grading [b, c]	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
Truck Dumping/Loading [d, e]	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
Total Daily Onsite Emissions (lb/day)	**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**

Construction Activity	2026															
	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Grading	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
Truck Dumping/Loading	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
Total Monthly Onsite Emissions (lb/month)	**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**
Total Project Emissions (tons)																

Notes:

[a] Per information provided by the Applicant's engineering contractor, work days per month are as follows:

[b] Grading emissions based on the controlled emission factor for PM_{10}.

[c] Per Section 4.4.1 of Appendix C of the *CalEEMod User's Guide* (ICF 2022), the following blade width was assumed for grading equipment:

[d] Assume that soil is dumped from or loaded to the truck the same month it is imported or exported, respectively.

[e] Per Section 4.4.3 of Appendix C of the *CalEEMod User's Guide* (ICF 2022), the following conversion factor was used:

Grading and Truck Dumping/Loading Fugitive $PM_{2.5}$ Emissions from

Construction Activity	2026															
	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Grading [b, c]	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
Truck Dumping/Loading [d, e]	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
Total Daily Onsite Emissions (lb/day)	**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**

Construction Activity	2026															
	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Grading	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
Truck Dumping/Loading	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
Total Monthly Onsite Emissions (lb/month)	**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**
Total Project Emissions (tons)																

Notes:

[a] Per information provided by the Applicant's engineering contractor, work days per month are as follows:

[b] Grading emissions based on the controlled emission factor for $PM_{2.5}$.

[c] Per Section 4.4.1 of Appendix C of the *CalEEMod User's Guide* (ICF 2022), the following blade width was assumed for grading equipment:

[d] Assume that soil is dumped from or loaded to the truck the same month it is imported or exported, respectively.

[e] Per Section 4.4.3 of Appendix C of the *CalEEMod User's Guide* (ICF 2022), the following conversion factor was used:

BHE Renewables

Morton Bay Construction Emissions
Emissions from Fugitive Dust and Other Offroad Activities
April 2023

Fugitive Dust Emission Factors for Unpaved Roads
Vehicles on Unpaved Surfaces at Industrial Sites

Parameter	PM_{10}	$PM_{2.5}$
k - Particle Size Multiplier (lb/VMT) [a]	1.80	0.18
s - Silt Content (%) [a]	8.5	8.5
M - Surface Material Moisture Content (%) [a]	0.5	0.5
S - Mean Vehicle Speed (mph) [a]	40	40
C - Emission Factor for Exhaust, Brake Wear and Tire Wear (lb/VMT) [b]	0.00047	0.00036
P - Days per Year With at Least 0.01" of Precipitation [c]	5	5
Emission Factor (Uncontrolled, lb/mile) [d]	1.4524	0.1447
Reduction from Watering Every 2.1 Hours [e]	74%	74%
Emission Factor (Controlled, lb/mile)	0.3776	0.038

Notes:

[a] k, s, M, and S are taken as the CalEEMod default values from Section 5.1.4 of Appendix C of the *CalEEMod User's Guide* (ICF 2022). k was converted from g to lbs.

[b] C taken as the default values from Table 13.2.2-4 of *AP-42* (EPA 2006), per Section 5.1.4 of Appendix C of the *CalEEMod User's Guide*.

[c] P taken as the CalEEMod default value for the Imperial County Airport from Table G-2 of Appendix G of the *CalEEMod User's Guide* (ICF

[d] Emission factor calculated per Section 5.1.4 of Appendix C of the *CalEEMod User's Guide* (ICF 2022):

$$EF_{unpaved}(lb/mile) = \left(\frac{k(s/12)^1(S/30)^{0.5}}{(M/0.5)^{0.2}} - C\right) \times \left(1 - \frac{P}{365}\right)$$

[e] Control efficiency of watering disturbed areas three times per 8-hour shift (every 2.1 hours) taken from Section 4.4.4 of Appendix C of the *CalEEMod User's Guide* (ICF 2022) and assumes the same control as indicated for grading, bulldozing, and truck loading.

Fugitive Dust Emission Factors for Truck Dumping/Loading
Truck Dumping on a Pile or Loading to a Truck from a Pile

Parameter	PM_{10}	$PM_{2.5}$
k [a]	0.35	0.053
U [b]	7.6	7.6
M [a]	12.0	12.0
Emission Factor (lb/ton) [c]	0.00016	0.000024

Notes:

[a] k and M taken from Section 4.4.3 of Appendix C of the *CalEEMod User's Guide* (ICF 2022).

[b] U taken as the average annual wind speed measured at the Imperial

[c] Emission factor calculated using the following equation from Section 4.4.3 of Appendix C of the *CalEEMod User's Guide* (ICF 2022):

Emission Factor (lb/ton) = k x 0.0032 x [U (mph) / 5]$^{1.3}$ / [M (%) / 2]$^{1.4}$

Fugitive Dust Emission Factors for Grading
Grading Equipment Passes

Parameter	PM_{10}	$PM_{2.5}$
S [a]	7.1	7.1
F [a]	0.6	0.031
Emission Factor (lb/VMT) [b]	1.543	0.167
Reduction from Watering Every 2.1 Hours [c]	74%	74%
Emission Factor (Controlled, lb/VMT)	0.401	0.043

Notes:

[a] S and F taken from Section 4.4.1 of Appendix C of the *CalEEMod User's Guide* (ICF 2022).

[b] Emission factors calculated using the following equations from Section 4.4.1 of Appendix C of the *CalEEMod User's Guide* (ICF 2022):

PM_{10} Emission Factor (lb/VMT) = 0.051 x [S (mph)]$^{2.0}$ x F_{PM10}

$PM_{2.5}$ Emission Factor (lb/VMT) = 0.04 x [S (mph)]$^{2.5}$ x $F_{PM2.5}$

[c] Control efficiency of watering disturbed areas three times per 8-hour shift (every 2.1 hours) taken from Section 4.4.4 of Appendix C of the *CalEEMod User's Guide* (ICF 2022).

BHE Renewables

Morton Bay Construction Emissions

Emissions from Fugitive Dust and Other Offroad Activities

April 2023

Fugitive Dust Emission Factors for Unpaved Roads
Vehicles on Unpaved Surfaces at Industrial Sites

Parameter
k - Particle Size Multiplier (lb/VMT) [a]
s - Silt Content (%) [a]
M - Surface Material Moisture Content (%) [a]
S - Mean Vehicle Speed (mph) [a]
C - Emission Factor for Exhaust, Brake Wear and Tire Wear (lb/VMT) [b]
P - Days per Year With at Least 0.01" of Precipitation [c]
Emission Factor (Uncontrolled, lb/mile) [d]
Reduction from Watering Every 2.1 Hours [e]
Emission Factor (Controlled, lb/mile)

Notes:

[a] k, s, M, and S are taken as the CalEEMod default values from Section 5.1.4 of Appendix C of the *CalEEMod User's Guide* (ICF 2022). k was converted from g to lbs.

[b] C taken as the default values from Table 13.2.2-4 of *AP-42* (EPA 2006), per Section 5.1.4 of Appendix C of the *CalEEMod User's Guide*

[c] P taken as the CalEEMod default value for the Imperial County Airport from Table G-2 of Appendix G of the *CalEEMod User's Guide* (ICF

[d] Emission factor calculated per Section 5.1.4 of Appendix C of the *CalEEMod User's Guide* (ICF 2022):

$$EF_{unpaved}(lb/mile) = \left(\frac{k(s/12)^1(S/30)^{0.5}}{(M/0.5)^{0.2}} - C\right) \times \left(1 - \frac{P}{365}\right)$$

[e] Control efficiency of watering disturbed areas three times per 8-hour shi

Fugitive Dust Emission Factors for Truck Dumping/Loading
Truck Dumping on a Pile or Loading to a Truck from a Pile

Parameter
k [a]
U [b]
M [a]
Emission Factor (lb/ton) [c]

Notes:

[a] k and M taken from Section 4.4.3 of Appendix C of the *CalEEMod User's Guide* (ICF 2022).

[b] U taken as the average annual wind speed measured at the Imperial

[c] Emission factor calculated using the following equation from Section 4.4.3 of Appendix C of the *CalEEMod User's Guide* (ICF 2022):

Emission Factor (lb/ton) = k x 0.0032 x [U (mph) / 5]$^{1.3}$ / [M (%) / 2]$^{1.4}$

Fugitive Dust Emission Factors for Grading
Grading Equipment Passes

Parameter
S [a]
F [a]
Emission Factor (lb/VMT) [b]
Reduction from Watering Every 2.1 Hours [c]
Emission Factor (Controlled, lb/VMT)

Notes:

[a] S and F taken from Section 4.4.1 of Appendix C of the *CalEEMod User's Guide* (ICF 2022).

[b] Emission factors calculated using the following equations from Section 4.4.1 of Appendix C of the *CalEEMod User's Guide* (ICF 2022):

PM_{10} Emission Factor (lb/VMT) = 0.051 x [S (mph)]$^{2.0}$ x F_{PM10}

$PM_{2.5}$ Emission Factor (lb/VMT) = 0.04 x [S (mph)]$^{2.5}$ x $F_{PM2.5}$

[c] Control efficiency of watering disturbed areas three times per 8-hour shift (every 2.1 hours) taken from Section 4.4.4 of Appendix C of the *CalEEMod User's Guide* (ICF 2022).

BHE Renewables

Morton Bay Construction Emissions
Paving Emissions
April 2023

Onsite Paving VOC Emissions from BHER Morton Bay Construction

Paving Area	VOC Emissions (lb/day) [a,b]																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Paved Areas	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	0.74	0.74	0.00	0.00
Total Daily Onsite Emissions (lb/day)	**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**	**0.74**	**0.74**	**0.00**	**0.00**
	VOC Emissions (lb/month) [a,b]																	
	2024												2025					
Paving Area	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onsite Paved Areas	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	17.03	17.03	0.00	0.00
Total Monthly Onsite Emissions (lb/month)	**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**	**17.03**	**17.03**	**0.00**	**0.00**
Total Project Emissions (tons)	**0.02**																	

Notes:
[a] Assumed paving activities occur during only the months where a compactor was in use, for a total of: 2 months
[b] The total amount of paving was assumed to occur evenly during the months of paving operations.

Offsite Paving VOC Emissions from BHER Morton Bay Construction

Paving Area	VOC Emissions (lb/day) [a,b]																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Offsite Paved Areas	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	1.76	1.76	0.00	0.00
Total Daily Offsite Emissions (lb/day)	**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**	**1.76**	**1.76**	**0.00**	**0.00**
	VOC Emissions (lb/month) [a,b]																	
	2024												2025					
Paving Area	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Offsite Paved Areas	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	40.37	40.37	0.00	0.00
Total Monthly Offsite Emissions (lb/month)	**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**	**40.37**	**40.37**	**0.00**	**0.00**
Total Project Emissions (tons)	**0.04**																	

Notes:
[a] Assumed paving activities occur during only the months where a compactor was in use, for a total of: 2 months
[b] The total amount of paving was assumed to occur evenly during the months of paving operations.

Paving Emission Variables

Parameter	Value	Percent of Total Area
Onsite Paved Area (acres) [a]	13.0	30%
Offsite Paved Area (acres) [b]	30.8	70%
Working Days per Month [c]	23	
Emission Factor (lb/acre) [d]	2.62	

Notes:
[a] Onsite paved area estimated to include plant area and roads and was provided by the Applicant's engineering contractor.
[b] Offsite paved area estimated to include well pads and roads and was provided by the Applicant's engineering contractor. Paved road width was assumed to be 30
[c] Working days per month were provided by the Applicant's engineering contractor.
[d] Emission factor is per Section 4.9 of Appendix C of the *CalEEMod User's Guide* (ICF 2022).

BHE Renewables

Morton Bay Construction Emissions
Paving Emissions
April 2023

Onsite Paving VOC Emissions from BHER Morton Bay Construction

Paving Area	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Paved Areas	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
Total Daily Onsite Emissions (lb/day)	**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**

Paving Area	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onsite Paved Areas	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
Total Monthly Onsite Emissions (lb/month)	**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**
Total Project Emissions (tons)																		

Notes:
[a] Assumed paving activities occur during only the months where a compactor was in use, for a total of:
[b] The total amount of paving was assumed to occur evenly during the months of paving operations.

Offsite Paving VOC Emissions from BHER Morton Ba

Paving Area	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Offsite Paved Areas	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
Total Daily Offsite Emissions (lb/day)	**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**

Paving Area	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Offsite Paved Areas	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
Total Monthly Offsite Emissions (lb/month)	**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**
Total Project Emissions (tons)																		

Notes:
[a] Assumed paving activities occur during only the months where a compactor was in use, for a total of:
[b] The total amount of paving was assumed to occur evenly during the months of paving operations.

Paving Emission Variables

Parameter
Onsite Paved Area (acres) [a]
Offsite Paved Area (acres) [b]
Working Days per Month [c]
Emission Factor (lb/acre) [d]

Notes:
[a] Onsite paved area estimated to include plant area and roads and was provided by the Applicant's engineering contractor.
[b] Offsite paved area estimated to include well pads and roads and was provided by the Applicant's engineering contractor. Paved road width was assumed to be 30
[c] Working days per month were provided by the Applicant's engineering contractor.
[d] Emission factor is per Section 4.9 of Appendix C of the *CalEEMod User's Guide* (ICF 2022).

BHE Renewables

Morton Bay Construction Emissions

Offsite, Onroad Vehicle Exhaust Emissions

April 2023

Offsite, Onroad Vehicle Exhaust CO Emissions from BHER Morton Bay Construction

Vehicle Type	CO Emissions (lb/day)																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onroad Delivery Trucks [a]	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03
Material Hauling Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.01	0.01	0.00
Construction Worker Commute [b]	0.00	0.00	0.00	1.47	2.38	7.15	10.81	11.73	15.21	17.78	22.36	21.99	29.51	30.97	27.86	27.31	29.87	37.94
Average Daily Offsite, Onroad Emissions (lb/day)	**0.00**	**0.00**	**0.00**	**1.47**	**2.39**	**7.16**	**10.82**	**11.74**	**15.23**	**17.80**	**22.38**	**22.02**	**29.54**	**31.02**	**27.90**	**27.35**	**29.91**	**37.96**
Vehicle Type	**CO Emissions (lb/month) [c]**																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onroad Delivery Trucks	0.02	0.04	0.08	0.13	0.22	0.22	0.24	0.33	0.39	0.39	0.50	0.56	0.65	0.59	0.59	0.63	0.63	0.58
Material Hauling Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.19	0.50	0.48	0.31	0.19	0.00
Construction Worker Commute	0.00	0.00	0.00	33.72	54.80	164.40	248.71	269.79	349.88	408.90	514.28	505.85	678.68	712.41	640.74	628.10	687.11	872.59
Total Monthly Offsite, Onroad Emissions (lb/month)	**0.02**	**0.04**	**0.08**	**33.85**	**55.02**	**164.62**	**248.95**	**270.12**	**350.27**	**409.29**	**514.78**	**506.50**	**679.52**	**713.49**	**641.81**	**629.03**	**687.94**	**873.17**
Total Project Offiste, Onroad Emissions (tons)	**7.81**																	

Offsite, Onroad Vehicle Exhaust VOC Emissions from BHER Morton Bay Construction

Vehicle Type	VOC Emissions (lb/day)																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onroad Delivery Trucks [a]	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
Material Hauling Trucks	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
Construction Worker Commute [b]	0.00	0.00	0.00	0.02	0.04	0.11	0.16	0.18	0.23	0.27	0.34	0.33	0.45	0.47	0.42	0.41	0.45	0.57
Average Daily Offsite, Onroad Emissions (lb/day)	**0.00**	**0.00**	**0.00**	**0.02**	**0.04**	**0.11**	**0.16**	**0.18**	**0.23**	**0.27**	**0.34**	**0.34**	**0.45**	**0.47**	**0.43**	**0.42**	**0.46**	**0.58**
Vehicle Type	**VOC Emissions (lb/month) [c]**																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onroad Delivery Trucks	0.00	0.01	0.01	0.02	0.03	0.03	0.04	0.05	0.06	0.06	0.08	0.08	0.10	0.09	0.09	0.10	0.10	0.09
Material Hauling Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.05	0.05	0.03	0.02	0.00
Construction Worker Commute	0.00	0.00	0.00	0.51	0.83	2.48	3.76	4.07	5.28	6.18	7.77	7.64	10.25	10.76	9.68	9.49	10.38	13.18
Total Monthly Offsite, Onroad Emissions (lb/month)	**0.00**	**0.01**	**0.01**	**0.53**	**0.86**	**2.52**	**3.79**	**4.12**	**5.34**	**6.23**	**7.84**	**7.73**	**10.37**	**10.90**	**9.82**	**9.61**	**10.49**	**13.27**
Total Project Offiste, Onroad Emissions (tons)	**0.12**																	

Offsite, Onroad Vehicle Exhaust SO_X Emissions from BHER Morton Bay Construction

Vehicle Type	SO_X Emissions (lb/day)																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onroad Delivery Trucks [a]	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
Material Hauling Trucks	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
Construction Worker Commute [b]	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.02	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.05
Average Daily Offsite, Onroad Emissions (lb/day)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**0.02**	**0.02**	**0.02**	**0.03**	**0.04**	**0.04**	**0.05**	**0.05**	**0.05**	**0.04**	**0.05**	**0.06**
Vehicle Type	**SO_X Emissions (lb/month) [c]**																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onroad Delivery Trucks	0.00	0.00	0.01	0.02	0.03	0.03	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.08	0.08	0.08	0.08	0.08
Material Hauling Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.07	0.07	0.04	0.03	0.00
Construction Worker Commute	0.00	0.00	0.00	0.05	0.08	0.24	0.36	0.39	0.50	0.59	0.74	0.73	0.98	1.03	0.92	0.91	0.99	1.26
Total Monthly Offsite, Onroad Emissions (lb/month)	**0.00**	**0.00**	**0.01**	**0.07**	**0.11**	**0.27**	**0.39**	**0.43**	**0.56**	**0.64**	**0.81**	**0.82**	**1.09**	**1.18**	**1.07**	**1.03**	**1.10**	**1.33**
Total Project Offiste, Onroad Emissions (tons)	**0.01**																	

BHE Renewables

Morton Bay Construction Emissions

Offsite, Onroad Vehicle Exhaust Emissions

April 2023

Offsite, Onroad Vehicle Exhaust CO Emissions from BHER Morton Bay Construction

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onroad Delivery Trucks [a]	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01
Material Hauling Trucks	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
Construction Worker Commute [b]	41.79	48.20	48.57	51.32	50.04	44.72	39.95	29.14	12.83	5.86	4.22	3.48	2.38	1.83	0.00	0.00	0.00	0.00
Average Daily Offsite, Onroad Emissions (lb/day)	**41.81**	**48.23**	**48.59**	**51.34**	**50.05**	**44.73**	**39.96**	**29.15**	**12.84**	**5.87**	**4.22**	**3.48**	**2.40**	**1.85**	**0.01**	**0.01**	**0.01**	**0.01**

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onroad Delivery Trucks	0.52	0.52	0.49	0.49	0.23	0.17	0.17	0.17	0.17	0.05	0.05	0.05	0.30	0.30	0.28	0.28	0.22	0.22
Material Hauling Trucks	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
Construction Worker Commute	961.12	1,108.66	1,117.09	1,180.32	1,150.81	1,028.56	918.96	670.25	295.08	134.89	96.95	80.09	54.80	42.15	0.00	0.00	0.00	0.00
Total Monthly Offsite, Onroad Emissions (lb/month)	**961.64**	**1,109.18**	**1,117.58**	**1,180.81**	**1,151.04**	**1,028.73**	**919.13**	**670.42**	**295.24**	**134.94**	**97.00**	**80.14**	**55.10**	**42.45**	**0.28**	**0.28**	**0.22**	**0.22**
Total Project Offiste, Onroad Emissions (tons)																		

Offsite, Onroad Vehicle Exhaust VOC Emissions from BHER Morton

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onroad Delivery Trucks [a]	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
Material Hauling Trucks	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
Construction Worker Commute [b]	0.63	0.73	0.73	0.78	0.76	0.68	0.60	0.44	0.19	0.09	0.06	0.05	0.04	0.03	0.00	0.00	0.00	0.00
Average Daily Offsite, Onroad Emissions (lb/day)	**0.63**	**0.73**	**0.74**	**0.78**	**0.76**	**0.68**	**0.60**	**0.44**	**0.19**	**0.09**	**0.06**	**0.05**	**0.04**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onroad Delivery Trucks	0.08	0.08	0.07	0.07	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.05	0.05	0.04	0.04	0.03	0.03
Material Hauling Trucks	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
Construction Worker Commute	14.52	16.74	16.87	17.83	17.38	15.53	13.88	10.12	4.46	2.04	1.46	1.21	0.83	0.64	0.00	0.00	0.00	0.00
Total Monthly Offsite, Onroad Emissions (lb/month)	**14.60**	**16.82**	**16.95**	**17.90**	**17.41**	**15.56**	**13.90**	**10.15**	**4.48**	**2.04**	**1.47**	**1.22**	**0.87**	**0.68**	**0.04**	**0.04**	**0.03**	**0.03**
Total Project Offiste, Onroad Emissions (tons)																		

Offsite, Onroad Vehicle Exhaust SO_X Emissions from BHER Morton E

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onroad Delivery Trucks [a]	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
Material Hauling Trucks	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
Construction Worker Commute [b]	0.06	0.07	0.07	0.07	0.07	0.06	0.06	0.04	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily Offsite, Onroad Emissions (lb/day)	**0.06**	**0.07**	**0.07**	**0.08**	**0.07**	**0.07**	**0.06**	**0.04**	**0.02**	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onroad Delivery Trucks	0.07	0.07	0.06	0.06	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.04	0.04	0.04	0.04	0.03	0.03
Material Hauling Trucks	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
Construction Worker Commute	1.39	1.60	1.61	1.70	1.66	1.48	1.33	0.97	0.43	0.19	0.14	0.12	0.08	0.06	0.00	0.00	0.00	0.00
Total Monthly Offsite, Onroad Emissions (lb/month)	**1.45**	**1.67**	**1.68**	**1.77**	**1.69**	**1.51**	**1.35**	**0.99**	**0.45**	**0.20**	**0.15**	**0.12**	**0.12**	**0.10**	**0.04**	**0.04**	**0.03**	**0.03**
Total Project Offiste, Onroad Emissions (tons)																		

BHE Renewables Morton Bay

Construction Emissions

Offsite, Onroad Vehicle Exhaust Emissions

April 2023

Offsite, Onroad Vehicle Exhaust NO_X Emissions from BHER Morton Bay Construction

Vehicle Type	NO_X Emissions (lb/day)																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onroad Delivery Trucks [a]	0.01	0.02	0.05	0.07	0.12	0.12	0.13	0.18	0.22	0.22	0.28	0.31	0.36	0.33	0.33	0.35	0.35	0.33
Material Hauling Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.11	0.28	0.27	0.17	0.11	0.00
Construction Worker Commute [b]	0.00	0.00	0.00	0.09	0.14	0.43	0.66	0.71	0.92	1.08	1.36	1.33	1.79	1.88	1.69	1.66	1.81	2.30
Average Daily Offsite, Onroad Emissions (lb/day)	**0.01**	**0.02**	**0.05**	**0.16**	**0.27**	**0.56**	**0.79**	**0.90**	**1.14**	**1.30**	**1.63**	**1.70**	**2.26**	**2.49**	**2.29**	**2.18**	**2.27**	**2.63**
Vehicle Type	NO_X Emissions (lb/month) [c]																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onroad Delivery Trucks	0.31	0.48	1.06	1.64	2.80	2.80	3.09	4.25	5.03	5.03	6.38	7.15	8.31	7.54	7.54	8.12	8.12	7.50
Material Hauling Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.26	2.51	6.53	6.28	4.02	2.51	0.00
Construction Worker Commute	0.00	0.00	0.00	2.04	3.32	9.97	15.08	16.35	21.21	24.79	31.17	30.66	41.14	43.18	38.84	38.07	41.65	52.89
Total Monthly Offsite, Onroad Emissions (lb/month)	**0.31**	**0.48**	**1.06**	**3.69**	**6.12**	**12.77**	**18.17**	**20.61**	**26.23**	**29.81**	**37.55**	**39.07**	**51.96**	**57.26**	**52.66**	**50.21**	**52.28**	**60.39**
Total Project Offiste, Onroad Emissions (tons)	**0.56**																	

Offsite, Onroad Vehicle Exhaust, Vehicle Wear, and Fugitive Dust PM_{10} Emissions from BHER Morton Bay Construction

Vehicle Type	PM_{10} Emissions (lb/day) [d]																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onroad Delivery Trucks [a]	0.00	0.01	0.02	0.02	0.04	0.04	0.05	0.06	0.07	0.07	0.09	0.10	0.12	0.11	0.11	0.12	0.12	0.11
Material Hauling Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.04	0.09	0.09	0.06	0.04	0.00
Construction Worker Commute [b]	0.00	0.00	0.00	0.22	0.35	1.05	1.59	1.72	2.23	2.61	3.28	3.23	4.33	4.55	4.09	4.01	4.39	5.57
Average Daily Offsite, Onroad Emissions (lb/day)	**0.00**	**0.01**	**0.02**	**0.24**	**0.39**	**1.09**	**1.63**	**1.78**	**2.31**	**2.68**	**3.38**	**3.35**	**4.49**	**4.75**	**4.29**	**4.18**	**4.54**	**5.68**
Vehicle Type	PM_{10} Emissions (lb/month) [c, d]																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onroad Delivery Trucks	0.10	0.16	0.36	0.55	0.94	0.94	1.04	1.43	1.69	1.69	2.14	2.40	2.79	2.53	2.53	2.73	2.73	2.52
Material Hauling Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.82	2.13	2.05	1.31	0.82	0.00
Construction Worker Commute	0.00	0.00	0.00	4.95	8.05	24.14	36.51	39.61	51.36	60.03	75.50	74.26	99.63	104.59	94.07	92.21	100.87	128.10
Total Monthly Offsite, Onroad Emissions (lb/month)	**0.10**	**0.16**	**0.36**	**5.50**	**8.99**	**25.08**	**37.55**	**41.03**	**53.05**	**61.72**	**77.64**	**77.07**	**103.25**	**109.25**	**98.65**	**96.25**	**104.42**	**130.62**
Total Project Offiste, Onroad Emissions (tons)	**1.17**																	

Offsite, Onroad Vehicle Exhaust, Vehicle Wear, and Fugitive Dust $PM_{2.5}$ Emissions from BHER Morton Bay Construction

Vehicle Type	$PM_{2.5}$ Emissions (lb/day) [d]																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onroad Delivery Trucks [a]	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Material Hauling Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.03	0.03	0.02	0.01	0.00
Construction Worker Commute [b]	0.00	0.00	0.00	0.06	0.09	0.27	0.41	0.44	0.58	0.67	0.85	0.83	1.12	1.17	1.06	1.03	1.13	1.44
Average Daily Offsite, Onroad Emissions (lb/day)	**0.00**	**0.00**	**0.00**	**0.06**	**0.10**	**0.28**	**0.42**	**0.46**	**0.60**	**0.69**	**0.87**	**0.87**	**1.16**	**1.23**	**1.11**	**1.08**	**1.18**	**1.47**
Vehicle Type	$PM_{2.5}$ Emissions (lb/month) [c, d]																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onroad Delivery Trucks	0.03	0.05	0.10	0.16	0.27	0.27	0.30	0.41	0.48	0.48	0.61	0.69	0.80	0.73	0.73	0.78	0.78	0.72
Material Hauling Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.24	0.62	0.60	0.38	0.24	0.00
Construction Worker Commute	0.00	0.00	0.00	1.28	2.08	6.23	9.42	10.22	13.25	15.49	19.48	19.16	25.71	26.98	24.27	23.79	26.02	33.05
Total Monthly Offsite, Onroad Emissions (lb/month)	**0.03**	**0.05**	**0.10**	**1.44**	**2.35**	**6.50**	**9.72**	**10.63**	**13.74**	**15.97**	**20.09**	**19.97**	**26.74**	**28.33**	**25.59**	**24.95**	**27.05**	**33.77**
Total Project Offiste, Onroad Emissions (tons)	**0.30**																	

BHE Renewables

Morton Bay Construction Emissions
Offsite, Onroad Vehicle Exhaust Emissions
April 2023

Offsite, Onroad Vehicle Exhaust NO_X Emissions from BHER Morton I

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onroad Delivery Trucks [a]	0.29	0.29	0.28	0.28	0.13	0.09	0.09	0.09	0.09	0.03	0.03	0.03	0.17	0.17	0.16	0.16	0.12	0.12
Material Hauling Trucks	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
Construction Worker Commute [b]	2.53	2.92	2.94	3.11	3.03	2.71	2.42	1.77	0.78	0.36	0.26	0.21	0.14	0.11	0.00	0.00	0.00	0.00
Average Daily Offsite, Onroad Emissions (lb/day)	**2.83**	**3.21**	**3.22**	**3.39**	**3.16**	**2.80**	**2.51**	**1.86**	**0.87**	**0.38**	**0.28**	**0.24**	**0.31**	**0.28**	**0.16**	**0.16**	**0.12**	**0.12**

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onroad Delivery Trucks	6.73	6.73	6.34	6.34	2.90	2.13	2.13	2.13	2.13	0.58	0.58	0.58	3.87	3.87	3.63	3.63	2.86	2.86
Material Hauling Trucks	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
Construction Worker Commute	58.26	67.20	67.71	71.55	69.76	62.35	55.70	40.63	17.89	8.18	5.88	4.86	3.32	2.56	0.00	0.00	0.00	0.00
Total Monthly Offsite, Onroad Emissions (lb/month)	**64.99**	**73.93**	**74.06**	**77.89**	**72.66**	**64.48**	**57.83**	**42.76**	**20.01**	**8.76**	**6.46**	**5.43**	**7.19**	**6.42**	**3.63**	**3.63**	**2.86**	**2.86**
Total Project Offiste, Onroad Emissions (tons)																		

Offsite, Onroad Vehicle Exhaust, Vehicle Wear, and Fugitive Dust PM

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onroad Delivery Trucks [a]	0.10	0.10	0.09	0.09	0.04	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.06	0.06	0.05	0.05	0.04	0.04
Material Hauling Trucks	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
Construction Worker Commute [b]	6.13	7.08	7.13	7.53	7.35	6.57	5.87	4.28	1.88	0.86	0.62	0.51	0.35	0.27	0.00	0.00	0.00	0.00
Average Daily Offsite, Onroad Emissions (lb/day)	**6.23**	**7.17**	**7.22**	**7.63**	**7.39**	**6.60**	**5.90**	**4.31**	**1.91**	**0.87**	**0.63**	**0.52**	**0.41**	**0.33**	**0.05**	**0.05**	**0.04**	**0.04**

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onroad Delivery Trucks	2.26	2.26	2.13	2.13	0.97	0.71	0.71	0.71	0.71	0.19	0.19	0.19	1.30	1.30	1.22	1.22	0.96	0.96
Material Hauling Trucks	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
Construction Worker Commute	141.10	162.76	164.00	173.28	168.95	151.00	134.91	98.40	43.32	19.80	14.23	11.76	8.05	6.19	0.00	0.00	0.00	0.00
Total Monthly Offsite, Onroad Emissions (lb/month)	**143.36**	**165.02**	**166.12**	**175.41**	**169.92**	**151.71**	**135.62**	**99.11**	**44.03**	**20.00**	**14.43**	**11.95**	**9.34**	**7.49**	**1.22**	**1.22**	**0.96**	**0.96**
Total Project Offiste, Onroad Emissions (tons)																		

Offsite, Onroad Vehicle Exhaust, Vehicle Wear, and Fugitive Dust PM

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onroad Delivery Trucks [a]	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.01	0.01
Material Hauling Trucks	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
Construction Worker Commute [b]	1.58	1.83	1.84	1.94	1.90	1.69	1.51	1.10	0.49	0.22	0.16	0.13	0.09	0.07	0.00	0.00	0.00	0.00
Average Daily Offsite, Onroad Emissions (lb/day)	**1.61**	**1.85**	**1.87**	**1.97**	**1.91**	**1.70**	**1.52**	**1.11**	**0.49**	**0.22**	**0.16**	**0.13**	**0.11**	**0.09**	**0.02**	**0.02**	**0.01**	**0.01**

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onroad Delivery Trucks	0.65	0.65	0.61	0.61	0.28	0.20	0.20	0.20	0.20	0.06	0.06	0.06	0.37	0.37	0.35	0.35	0.28	0.28
Material Hauling Trucks	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
Construction Worker Commute	36.40	41.99	42.31	44.70	43.59	38.96	34.81	25.39	11.18	5.11	3.67	3.03	2.08	1.60	0.00	0.00	0.00	0.00
Total Monthly Offsite, Onroad Emissions (lb/month)	**37.05**	**42.64**	**42.92**	**45.32**	**43.87**	**39.16**	**35.01**	**25.59**	**11.38**	**5.16**	**3.73**	**3.09**	**2.45**	**1.97**	**0.35**	**0.35**	**0.28**	**0.28**
Total Project Offiste, Onroad Emissions (tons)																		

BHE Renewables

Morton Bay Construction Emissions
Offsite, Onroad Vehicle Exhaust Emissions
April 2023

Offsite, Onroad Vehicle Exhaust CO_2 Emissions from BHER Morton Bay Construction

Vehicle Type	CO_2 Emissions (metric tons/day)																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onroad Delivery Trucks [a]	0.01	0.01	0.02	0.03	0.06	0.06	0.07	0.09	0.11	0.11	0.13	0.15	0.17	0.16	0.16	0.17	0.17	0.16
Material Hauling Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.06	0.15	0.14	0.09	0.06	0.00
Construction Worker Commute [b]	0.00	0.00	0.00	0.10	0.15	0.46	0.70	0.76	0.99	1.15	1.45	1.43	1.91	2.01	1.81	1.77	1.94	2.46
Average Daily Offsite, Onroad Emissions (metric tons/day)	**0.01**	**0.01**	**0.02**	**0.13**	**0.21**	**0.52**	**0.77**	**0.85**	**1.09**	**1.26**	**1.58**	**1.60**	**2.15**	**2.32**	**2.11**	**2.03**	**2.16**	**2.62**
Vehicle Type	CO_2 Emissions (metric tons/month) [c]																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onroad Delivery Trucks	0.15	0.23	0.51	0.80	1.36	1.36	1.50	2.06	2.43	2.43	3.09	3.46	4.02	3.65	3.65	3.93	3.93	3.63
Material Hauling Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.66	1.32	3.43	3.30	2.11	1.32	0.00
Construction Worker Commute	0.00	0.00	0.00	2.19	3.55	10.66	16.12	17.49	22.68	26.51	33.34	32.79	43.99	46.18	41.53	40.71	44.54	56.56
Total Monthly Offsite, Onroad Emissions (metric tons/month)	**0.15**	**0.23**	**0.51**	**2.98**	**4.91**	**12.01**	**17.62**	**19.55**	**25.11**	**28.94**	**36.42**	**36.91**	**49.34**	**53.26**	**48.48**	**46.75**	**49.79**	**60.19**
Total Project Offsite, Onroad Emissions (metric tons)	**1,095.21**																	

Offsite, Onroad Vehicle Exhaust N_2O Emissions from BHER Morton Bay Construction

Vehicle Type	N_2O Emissions (metric tons/day)																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onroad Delivery Trucks [a]	1.02E-08	1.59E-08	3.49E-08	5.40E-08	9.21E-08	9.21E-08	1.02E-07	1.40E-07	1.65E-07	1.65E-07	2.10E-07	2.35E-07	2.73E-07	2.48E-07	2.48E-07	2.67E-07	2.67E-07	2.46E-07
Material Hauling Trucks	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.28E-08	1.26E-07	3.26E-07	3.14E-07	2.01E-07	1.26E-07	0.00E+00
Construction Worker Commute [b]	0.00E+00	0.00E+00	0.00E+00	3.78E-07	6.14E-07	1.84E-06	2.79E-06	3.02E-06	3.92E-06	4.58E-06	5.76E-06	5.67E-06	7.61E-06	7.99E-06	7.18E-06	7.04E-06	7.70E-06	9.78E-06
Average Daily Offsite, Onroad Emissions (metric tons/day)	**1.02E-08**	**1.59E-08**	**3.49E-08**	**4.32E-07**	**7.06E-07**	**1.93E-06**	**2.89E-06**	**3.16E-06**	**4.09E-06**	**4.75E-06**	**5.97E-06**	**5.97E-06**	**8.01E-06**	**8.56E-06**	**7.74E-06**	**7.51E-06**	**8.09E-06**	**1.00E-05**
Vehicle Type	N_2O Emissions (metric tons/month) [c]																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onroad Delivery Trucks	2.34E-07	3.65E-07	8.03E-07	1.24E-06	2.12E-06	2.12E-06	2.34E-06	3.21E-06	3.80E-06	3.80E-06	4.82E-06	5.40E-06	6.28E-06	5.69E-06	5.69E-06	6.13E-06	6.13E-06	5.67E-06
Material Hauling Trucks	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.44E-06	2.89E-06	7.51E-06	7.22E-06	4.62E-06	2.89E-06	0.00E+00
Construction Worker Commute	0.00E+00	0.00E+00	0.00E+00	8.69E-06	1.41E-05	4.24E-05	6.41E-05	6.96E-05	9.02E-05	1.05E-04	1.33E-04	1.30E-04	1.75E-04	1.84E-04	1.65E-04	1.62E-04	1.77E-04	2.25E-04
Total Monthly Offsite, Onroad Emissions (metric tons/month)	**2.34E-07**	**3.65E-07**	**8.03E-07**	**9.94E-06**	**1.62E-05**	**4.45E-05**	**6.65E-05**	**7.28E-05**	**9.40E-05**	**1.09E-04**	**1.37E-04**	**1.37E-04**	**1.84E-04**	**1.97E-04**	**1.78E-04**	**1.73E-04**	**1.86E-04**	**2.31E-04**
Total Project Offsite, Onroad Emissions (metric tons)	**4.16E-03**																	

Offsite, Onroad Vehicle Exhaust CH_4 Emissions from BHER Morton Bay Construction

Vehicle Type	CH_4 Emissions (metric tons/day)																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onroad Delivery Trucks [a]	3.34E-09	5.21E-09	1.15E-08	1.77E-08	3.02E-08	3.02E-08	3.34E-08	4.59E-08	5.42E-08	5.42E-08	6.88E-08	7.72E-08	8.97E-08	8.13E-08	8.13E-08	8.76E-08	8.76E-08	8.09E-08
Material Hauling Trucks	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.40E-09	1.88E-08	4.89E-08	4.70E-08	3.01E-08	1.88E-08	0.00E+00
Construction Worker Commute [b]	0.00E+00	0.00E+00	0.00E+00	2.59E-06	4.20E-06	1.26E-05	1.91E-05	2.07E-05	2.68E-05	3.13E-05	3.94E-05	3.88E-05	5.20E-05	5.46E-05	4.91E-05	4.81E-05	5.27E-05	6.69E-05
Average Daily Offsite, Onroad Emissions (metric tons/day)	**3.34E-09**	**5.21E-09**	**1.15E-08**	**2.60E-06**	**4.23E-06**	**1.26E-05**	**1.91E-05**	**2.07E-05**	**2.69E-05**	**3.14E-05**	**3.95E-05**	**3.89E-05**	**5.21E-05**	**5.47E-05**	**4.92E-05**	**4.83E-05**	**5.28E-05**	**6.70E-05**
Vehicle Type	CH_4 Emissions (metric tons/month) [c]																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Onroad Delivery Trucks	7.67E-08	1.20E-07	2.64E-07	4.08E-07	6.95E-07	6.95E-07	7.67E-07	1.06E-06	1.25E-06	1.25E-06	1.58E-06	1.77E-06	2.06E-06	1.87E-06	1.87E-06	2.01E-06	2.01E-06	1.86E-06
Material Hauling Trucks	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.16E-07	4.33E-07	1.12E-06	1.08E-06	6.92E-07	4.33E-07	0.00E+00
Construction Worker Commute	0.00E+00	0.00E+00	0.00E+00	5.95E-05	9.66E-05	2.90E-04	4.39E-04	4.76E-04	6.17E-04	7.21E-04	9.07E-04	8.92E-04	1.20E-03	1.26E-03	1.13E-03	1.11E-03	1.21E-03	1.54E-03
Total Monthly Offsite, Onroad Emissions (metric tons/month)	**7.67E-08**	**1.20E-07**	**2.64E-07**	**5.99E-05**	**9.73E-05**	**2.91E-04**	**4.39E-04**	**4.77E-04**	**6.18E-04**	**7.22E-04**	**9.08E-04**	**8.94E-04**	**1.20E-03**	**1.26E-03**	**1.13E-03**	**1.11E-03**	**1.21E-03**	**1.54E-03**
Total Project Offsite, Onroad Emissions (metric tons)	**2.76E-02**																	

Notes:
[a] Onroad Delivery Trucks include information provided by the Applicant's engineering contractor, and exclude material haul trucks separately reported.
[b] Assumed 1 commute per 1 worker; number of workers traveling to both onsite and offsite locations provided by the Applicant's engineering contractor as Total Staffing each month.
[c] Working days per month were provided by the Applicant's engineering contractor.
[d] PM_{10} and $PM_{2.5}$ Emissions include emissions from exhaust, paved roads, and tire and brake wear.

Onroad Construction Vehicle Activity for BHER Morton Bay Construction

Vehicle Type	Roundtrip Miles/Day	Working Days per Month [a]
Onroad Delivery Trucks [b]	13.54	23
Material Hauling Trucks [c]	40	23
Construction Worker Commute [d]	19.36	23

Notes:
[a] Number of work days per month provided by the Applicant's engineering contractor.
[b] Delivery trucks assumed to be "Vendor Trucks" per Section 4.6.2 of Appendix C of the *CalEEMod User's Guide* . Therefore, roundtrip miles/day for Delivery Trucks are taken from Table G-15 for Imperial County Work-Other Trips of Appendix G of the *CalEEMod User's Guide* (ICF 2022).
[c] Roundtrip miles/day for Material Hauling Trucks taken from Section 4.6.2 of Appendix C of the *CalEEMod User's Guide* (ICF 2022).
[d] Roundtrip miles/day for Construction Worker Commute taken from Table G-15 for Imperial County Home-Work Trips of Appendix G of the *CalEEMod User's Guide* (ICF 2022).

BHE Renewables

Morton Bay Construction Emissions
Offsite, Onroad Vehicle Exhaust Emissions
April 2023

Offsite, Onroad Vehicle Exhaust CO_2 Emissions from BHER Morton E

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onroad Delivery Trucks [a]	0.14	0.14	0.13	0.13	0.06	0.04	0.04	0.04	0.04	0.01	0.01	0.01	0.08	0.08	0.08	0.08	0.06	0.06
Material Hauling Trucks	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
Construction Worker Commute [b]	2.71	3.12	3.15	3.33	3.24	2.90	2.59	1.89	0.83	0.38	0.27	0.23	0.15	0.12	0.00	0.00	0.00	0.00
Average Daily Offsite, Onroad Emissions (metric tons/day)	**2.85**	**3.27**	**3.28**	**3.46**	**3.30**	**2.94**	**2.63**	**1.93**	**0.88**	**0.39**	**0.29**	**0.24**	**0.24**	**0.20**	**0.08**	**0.08**	**0.06**	**0.06**

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onroad Delivery Trucks	3.26	3.26	3.07	3.07	1.40	1.03	1.03	1.03	1.03	0.28	0.28	0.28	1.87	1.87	1.76	1.76	1.38	1.38
Material Hauling Trucks	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
Construction Worker Commute	62.30	71.86	72.41	76.51	74.60	66.67	59.57	43.45	19.13	8.74	6.28	5.19	3.55	2.73	0.00	0.00	0.00	0.00
Total Monthly Offsite, Onroad Emissions (metric tons/month)	**65.56**	**75.12**	**75.48**	**79.58**	**76.00**	**67.70**	**60.60**	**44.48**	**20.16**	**9.02**	**6.57**	**5.47**	**5.42**	**4.60**	**1.76**	**1.76**	**1.38**	**1.38**
Total Project Offsite, Onroad Emissions (metric tons)																		

Offsite, Onroad Vehicle Exhaust N_2O Emissions from BHER Morton E

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onroad Delivery Trucks [a]	2.21E-07	2.21E-07	2.08E-07	2.08E-07	9.52E-08	6.98E-08	6.98E-08	6.98E-08	6.98E-08	1.90E-08	1.90E-08	1.90E-08	1.27E-07	1.27E-07	1.19E-07	1.19E-07	9.40E-08	9.40E-08
Material Hauling Trucks	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Construction Worker Commute [b]	1.08E-05	1.24E-05	1.25E-05	1.32E-05	1.29E-05	1.15E-05	1.03E-05	7.51E-06	3.31E-06	1.51E-06	1.09E-06	8.98E-07	6.14E-07	4.73E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Average Daily Offsite, Onroad Emissions (metric tons/day)	**1.10E-05**	**1.26E-05**	**1.27E-05**	**1.34E-05**	**1.30E-05**	**1.16E-05**	**1.04E-05**	**7.58E-06**	**3.38E-06**	**1.53E-06**	**1.11E-06**	**9.17E-07**	**7.41E-07**	**5.99E-07**	**1.19E-07**	**1.19E-07**	**9.40E-08**	**9.40E-08**

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onroad Delivery Trucks	5.08E-06	5.08E-06	4.79E-06	4.79E-06	2.19E-06	1.61E-06	1.61E-06	1.61E-06	1.61E-06	4.38E-07	4.38E-07	4.38E-07	2.92E-06	2.92E-06	2.75E-06	2.75E-06	2.16E-06	2.16E-06
Material Hauling Trucks	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Construction Worker Commute	2.48E-04	2.86E-04	2.88E-04	3.04E-04	2.97E-04	2.65E-04	2.37E-04	1.73E-04	7.61E-05	3.48E-05	2.50E-05	2.06E-05	1.41E-05	1.09E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total Monthly Offsite, Onroad Emissions (metric tons/month)	**2.53E-04**	**2.91E-04**	**2.93E-04**	**3.09E-04**	**2.99E-04**	**2.67E-04**	**2.39E-04**	**1.74E-04**	**7.77E-05**	**3.52E-05**	**2.54E-05**	**2.11E-05**	**1.70E-05**	**1.38E-05**	**2.75E-06**	**2.75E-06**	**2.16E-06**	**2.16E-06**
Total Project Offsite, Onroad Emissions (metric tons)																		

Offsite, Onroad Vehicle Exhaust CH_4 Emissions from BHER Morton E

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onroad Delivery Trucks [a]	7.26E-08	7.26E-08	6.84E-08	6.84E-08	3.13E-08	2.29E-08	2.29E-08	2.29E-08	2.29E-08	6.26E-09	6.26E-09	6.26E-09	4.17E-08	4.17E-08	3.92E-08	3.92E-08	3.09E-08	3.09E-08
Material Hauling Trucks	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Construction Worker Commute [b]	7.37E-05	8.50E-05	8.56E-05	9.05E-05	8.82E-05	7.88E-05	7.04E-05	5.14E-05	2.26E-05	1.03E-05	7.43E-06	6.14E-06	4.20E-06	3.23E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Average Daily Offsite, Onroad Emissions (metric tons/day)	**7.37E-05**	**8.51E-05**	**8.57E-05**	**9.05E-05**	**8.82E-05**	**7.89E-05**	**7.05E-05**	**5.14E-05**	**2.26E-05**	**1.03E-05**	**7.44E-06**	**6.15E-06**	**4.24E-06**	**3.27E-06**	**3.92E-08**	**3.92E-08**	**3.09E-08**	**3.09E-08**

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Onroad Delivery Trucks	1.67E-06	1.67E-06	1.57E-06	1.57E-06	7.19E-07	5.28E-07	5.28E-07	5.28E-07	5.28E-07	1.44E-07	1.44E-07	1.44E-07	9.59E-07	9.59E-07	9.02E-07	9.02E-07	7.10E-07	7.10E-07
Material Hauling Trucks	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Construction Worker Commute	1.69E-03	1.95E-03	1.97E-03	2.08E-03	2.03E-03	1.81E-03	1.62E-03	1.18E-03	5.20E-04	2.38E-04	1.71E-04	1.41E-04	9.66E-05	7.43E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total Monthly Offsite, Onroad Emissions (metric tons/month)	**1.70E-03**	**1.96E-03**	**1.97E-03**	**2.08E-03**	**2.03E-03**	**1.81E-03**	**1.62E-03**	**1.18E-03**	**5.21E-04**	**2.38E-04**	**1.71E-04**	**1.41E-04**	**9.76E-05**	**7.53E-05**	**9.02E-07**	**9.02E-07**	**7.10E-07**	**7.10E-07**
Total Project Offsite, Onroad Emissions (metric tons)																		

Notes:
[a] Onroad Delivery Trucks include information provided by the Applicant's e
[b] Assumed 1 commute per 1 worker; number of workers traveling to both c
[c] Working days per month were provided by the Applicant's engineering c
[d] PM_{10} and $PM_{2.5}$ Emissions include emissions from exhaust, paved roads

Onroad Construction Vehicle Activity for BHER Morton Bay Construc

Vehicle Type
Onroad Delivery Trucks [b]
Material Hauling Trucks [c]
Construction Worker Commute [d]

Notes:
[a] Number of work days per month provided by the Applicant's engineering
[b] Delivery trucks assumed to be "Vendor Trucks" per Section 4.6.2 of App
[c] Roundtrip miles/day for Material Hauling Trucks taken from Section 4.6.2
[d] Roundtrip miles/day for Construction Worker Commute taken from Table

BHE Renewables

Morton Bay Construction Emissions

Onsite, Onroad Vehicle Idling Emissions

April 2023

Onsite, Onroad Vehicle Idling CO Emissions from BHER Morton Bay Construction

Vehicle Type	CO Emissions (lb/day)																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Delivery Trucks [a]	1.6E-03	2.6E-03	5.7E-03	8.7E-03	1.5E-02	1.5E-02	1.6E-02	2.3E-02	2.7E-02	2.7E-02	3.4E-02	3.8E-02	4.4E-02	4.0E-02	4.0E-02	4.3E-02	4.3E-02	4.0E-02
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.2E-03	6.4E-03	1.7E-02	1.6E-02	1.0E-02	6.4E-03	0.0E+00
Total Daily Onsite, Onroad Emissions (lb/day)	**1.6E-03**	**2.6E-03**	**5.7E-03**	**8.7E-03**	**1.5E-02**	**1.5E-02**	**1.6E-02**	**2.3E-02**	**2.7E-02**	**2.7E-02**	**3.4E-02**	**4.1E-02**	**5.1E-02**	**5.7E-02**	**5.6E-02**	**5.3E-02**	**5.0E-02**	**4.0E-02**
Vehicle Type	**CO Emissions (lb/month) [b]**																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Delivery Trucks [a]	3.8E-02	5.9E-02	1.3E-01	2.0E-01	3.4E-01	3.4E-01	3.8E-01	5.2E-01	6.2E-01	6.2E-01	7.8E-01	8.8E-01	1.0E+00	9.2E-01	9.2E-01	9.9E-01	9.9E-01	9.2E-01
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	7.3E-02	1.5E-01	3.8E-01	3.7E-01	2.4E-01	1.5E-01	0.0E+00
Total Monthly Oniste, Onroad Emissions (lb/month)	**3.8E-02**	**5.9E-02**	**1.3E-01**	**2.0E-01**	**3.4E-01**	**3.4E-01**	**3.8E-01**	**5.2E-01**	**6.2E-01**	**6.2E-01**	**7.8E-01**	**9.5E-01**	**1.2E+00**	**1.3E+00**	**1.3E+00**	**1.2E+00**	**1.1E+00**	**9.2E-01**
Total Project Onsite, Onroad Emissions (tons)	**9.7E-03**																	

Onsite, Onroad Vehicle Idling VOC Emissions from BHER Morton Bay Construction

Vehicle Type	VOC Emissions (lb/day)																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Delivery Trucks [a]	1.0E-04	1.6E-04	3.5E-04	5.3E-04	9.1E-04	9.1E-04	1.0E-03	1.4E-03	1.6E-03	1.6E-03	2.1E-03	2.3E-03	2.7E-03	2.5E-03	2.5E-03	2.6E-03	2.6E-03	2.4E-03
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.2E-04	4.4E-04	1.1E-03	1.1E-03	7.0E-04	4.4E-04	0.0E+00
Total Daily Onsite, Onroad Emissions (lb/day)	**1.0E-04**	**1.6E-04**	**3.5E-04**	**5.3E-04**	**9.1E-04**	**9.1E-04**	**1.0E-03**	**1.4E-03**	**1.6E-03**	**1.6E-03**	**2.1E-03**	**2.5E-03**	**3.1E-03**	**3.6E-03**	**3.5E-03**	**3.3E-03**	**3.1E-03**	**2.4E-03**
Vehicle Type	**VOC Emissions (lb/month) [b]**																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Delivery Trucks [a]	2.3E-03	3.6E-03	8.0E-03	1.2E-02	2.1E-02	2.1E-02	2.3E-02	3.2E-02	3.8E-02	3.8E-02	4.8E-02	5.4E-02	6.2E-02	5.6E-02	5.6E-02	6.1E-02	6.1E-02	5.6E-02
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.0E-03	1.0E-02	2.6E-02	2.5E-02	1.6E-02	1.0E-02	0.0E+00
Total Monthly Oniste, Onroad Emissions (lb/month)	**2.3E-03**	**3.6E-03**	**8.0E-03**	**1.2E-02**	**2.1E-02**	**2.1E-02**	**2.3E-02**	**3.2E-02**	**3.8E-02**	**3.8E-02**	**4.8E-02**	**5.9E-02**	**7.2E-02**	**8.2E-02**	**8.1E-02**	**7.7E-02**	**7.1E-02**	**5.6E-02**
Total Project Onsite, Onroad Emissions (tons)	**6.0E-04**																	

Onsite, Onroad Vehicle Idling SO_X Emissions from BHER Morton Bay Construction

Vehicle Type	SO_X Emissions (lb/day)																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Delivery Trucks [a]	3.0E-06	4.7E-06	1.0E-05	1.6E-05	2.7E-05	2.7E-05	3.0E-05	4.1E-05	4.9E-05	4.9E-05	6.2E-05	7.0E-05	8.1E-05	7.3E-05	7.3E-05	7.9E-05	7.9E-05	7.3E-05
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.8E-06	9.5E-06	2.5E-05	2.4E-05	1.5E-05	9.5E-06	0.0E+00
Total Daily Onsite, Onroad Emissions (lb/day)	**3.0E-06**	**4.7E-06**	**1.0E-05**	**1.6E-05**	**2.7E-05**	**2.7E-05**	**3.0E-05**	**4.1E-05**	**4.9E-05**	**4.9E-05**	**6.2E-05**	**7.4E-05**	**9.0E-05**	**9.8E-05**	**9.7E-05**	**9.4E-05**	**8.8E-05**	**7.3E-05**
Vehicle Type	**SO_X Emissions (lb/month) [b]**																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Delivery Trucks [a]	6.9E-05	1.1E-04	2.4E-04	3.7E-04	6.3E-04	6.3E-04	6.9E-04	9.5E-04	1.1E-03	1.1E-03	1.4E-03	1.6E-03	1.9E-03	1.7E-03	1.7E-03	1.8E-03	1.8E-03	1.7E-03
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.1E-04	2.2E-04	5.7E-04	5.5E-04	3.5E-04	2.2E-04	0.0E+00
Total Monthly Oniste, Onroad Emissions (lb/month)	**6.9E-05**	**1.1E-04**	**2.4E-04**	**3.7E-04**	**6.3E-04**	**6.3E-04**	**6.9E-04**	**9.5E-04**	**1.1E-03**	**1.1E-03**	**1.4E-03**	**1.7E-03**	**2.1E-03**	**2.3E-03**	**2.2E-03**	**2.2E-03**	**2.0E-03**	**1.7E-03**
Total Project Onsite, Onroad Emissions (tons)	**1.7E-05**																	

Onsite, Onroad Vehicle Idling NO_X Emissions from BHER Morton Bay Construction

Vehicle Type	NO_X Emissions (lb/day)																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Delivery Trucks [a]	1.8E-03	2.8E-03	6.2E-03	9.6E-03	1.6E-02	1.6E-02	1.8E-02	2.5E-02	2.9E-02	2.9E-02	3.7E-02	4.2E-02	4.9E-02	4.4E-02	4.4E-02	4.8E-02	4.8E-02	4.4E-02
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.6E-03	5.2E-03	1.3E-02	1.3E-02	8.3E-03	5.2E-03	0.0E+00
Total Daily Onsite, Onroad Emissions (lb/day)	**1.8E-03**	**2.8E-03**	**6.2E-03**	**9.6E-03**	**1.6E-02**	**1.6E-02**	**1.8E-02**	**2.5E-02**	**2.9E-02**	**2.9E-02**	**3.7E-02**	**4.4E-02**	**5.4E-02**	**5.8E-02**	**5.7E-02**	**5.6E-02**	**5.3E-02**	**4.4E-02**
Vehicle Type	**NO_X Emissions (lb/month) [b]**																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Delivery Trucks [a]	4.2E-02	6.5E-02	1.4E-01	2.2E-01	3.8E-01	3.8E-01	4.2E-01	5.7E-01	6.8E-01	6.8E-01	8.6E-01	9.6E-01	1.1E+00	1.0E+00	1.0E+00	1.1E+00	1.1E+00	1.0E+00
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.9E-02	1.2E-01	3.1E-01	3.0E-01	1.9E-01	1.2E-01	0.0E+00
Total Monthly Oniste, Onroad Emissions (lb/month)	**4.2E-02**	**6.5E-02**	**1.4E-01**	**2.2E-01**	**3.8E-01**	**3.8E-01**	**4.2E-01**	**5.7E-01**	**6.8E-01**	**6.8E-01**	**8.6E-01**	**1.0E+00**	**1.2E+00**	**1.3E+00**	**1.3E+00**	**1.3E+00**	**1.2E+00**	**1.0E+00**
Total Project Onsite, Onroad Emissions (tons)	**1.0E-02**																	

BHE Renewables

Morton Bay Construction Emissions

Onsite, Onroad Vehicle Idling Emissions

April 2023

Onsite, Onroad Vehicle Idling CO Emissions from BHER Morton Bay Construction

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Delivery Trucks [a]	3.6E-02	3.6E-02	3.4E-02	3.4E-02	1.5E-02	1.1E-02	1.1E-02	1.1E-02	1.1E-02	3.1E-03	3.1E-03	3.1E-03	2.1E-02	2.1E-02	1.9E-02	1.9E-02	1.5E-02	1.5E-02
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total Daily Onsite, Onroad Emissions (lb/day)	**3.6E-02**	**3.6E-02**	**3.4E-02**	**3.4E-02**	**1.5E-02**	**1.1E-02**	**1.1E-02**	**1.1E-02**	**1.1E-02**	**3.1E-03**	**3.1E-03**	**3.1E-03**	**2.1E-02**	**2.1E-02**	**1.9E-02**	**1.9E-02**	**1.5E-02**	**1.5E-02**
Vehicle Type	**2026**																	
	July	**August**	**September**	**October**	**November**	**December**	**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Delivery Trucks [a]	8.2E-01	8.2E-01	7.8E-01	7.8E-01	3.5E-01	2.6E-01	2.6E-01	2.6E-01	2.6E-01	7.1E-02	7.1E-02	7.1E-02	4.7E-01	4.7E-01	4.4E-01	4.4E-01	3.5E-01	3.5E-01
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total Monthly Oniste, Onroad Emissions (lb/month)	**8.2E-01**	**8.2E-01**	**7.8E-01**	**7.8E-01**	**3.5E-01**	**2.6E-01**	**2.6E-01**	**2.6E-01**	**2.6E-01**	**7.1E-02**	**7.1E-02**	**7.1E-02**	**4.7E-01**	**4.7E-01**	**4.4E-01**	**4.4E-01**	**3.5E-01**	**3.5E-01**
Total Project Onsite, Onroad Emissions (tons)																		

Onsite, Onroad Vehicle Idling VOC Emissions from BHER Morton Bay

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Delivery Trucks [a]	2.2E-03	2.2E-03	2.1E-03	2.1E-03	9.4E-04	6.9E-04	6.9E-04	6.9E-04	6.9E-04	1.9E-04	1.9E-04	1.9E-04	1.3E-03	1.3E-03	1.2E-03	1.2E-03	9.3E-04	9.3E-04
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total Daily Onsite, Onroad Emissions (lb/day)	**2.2E-03**	**2.2E-03**	**2.1E-03**	**2.1E-03**	**9.4E-04**	**6.9E-04**	**6.9E-04**	**6.9E-04**	**6.9E-04**	**1.9E-04**	**1.9E-04**	**1.9E-04**	**1.3E-03**	**1.3E-03**	**1.2E-03**	**1.2E-03**	**9.3E-04**	**9.3E-04**
Vehicle Type	**2026**																	
	July	**August**	**September**	**October**	**November**	**December**	**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Delivery Trucks [a]	5.0E-02	5.0E-02	4.7E-02	4.7E-02	2.2E-02	1.6E-02	1.6E-02	1.6E-02	1.6E-02	4.3E-03	4.3E-03	4.3E-03	2.9E-02	2.9E-02	2.7E-02	2.7E-02	2.1E-02	2.1E-02
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total Monthly Oniste, Onroad Emissions (lb/month)	**5.0E-02**	**5.0E-02**	**4.7E-02**	**4.7E-02**	**2.2E-02**	**1.6E-02**	**1.6E-02**	**1.6E-02**	**1.6E-02**	**4.3E-03**	**4.3E-03**	**4.3E-03**	**2.9E-02**	**2.9E-02**	**2.7E-02**	**2.7E-02**	**2.1E-02**	**2.1E-02**
Total Project Onsite, Onroad Emissions (tons)																		

Onsite, Onroad Vehicle Idling SO_X Emissions from BHER Morton Bay

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Delivery Trucks [a]	6.5E-05	6.5E-05	6.2E-05	6.2E-05	2.8E-05	2.1E-05	2.1E-05	2.1E-05	2.1E-05	5.6E-06	5.6E-06	5.6E-06	3.8E-05	3.8E-05	3.5E-05	3.5E-05	2.8E-05	2.8E-05
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total Daily Onsite, Onroad Emissions (lb/day)	**6.5E-05**	**6.5E-05**	**6.2E-05**	**6.2E-05**	**2.8E-05**	**2.1E-05**	**2.1E-05**	**2.1E-05**	**2.1E-05**	**5.6E-06**	**5.6E-06**	**5.6E-06**	**3.8E-05**	**3.8E-05**	**3.5E-05**	**3.5E-05**	**2.8E-05**	**2.8E-05**
Vehicle Type	**2026**																	
	July	**August**	**September**	**October**	**November**	**December**	**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Delivery Trucks [a]	1.5E-03	1.5E-03	1.4E-03	1.4E-03	6.5E-04	4.8E-04	4.8E-04	4.8E-04	4.8E-04	1.3E-04	1.3E-04	1.3E-04	8.6E-04	8.6E-04	8.1E-04	8.1E-04	6.4E-04	6.4E-04
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total Monthly Oniste, Onroad Emissions (lb/month)	**1.5E-03**	**1.5E-03**	**1.4E-03**	**1.4E-03**	**6.5E-04**	**4.8E-04**	**4.8E-04**	**4.8E-04**	**4.8E-04**	**1.3E-04**	**1.3E-04**	**1.3E-04**	**8.6E-04**	**8.6E-04**	**8.1E-04**	**8.1E-04**	**6.4E-04**	**6.4E-04**
Total Project Onsite, Onroad Emissions (tons)																		

Onsite, Onroad Vehicle Idling NO_X Emissions from BHER Morton Bay

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Delivery Trucks [a]	3.9E-02	3.9E-02	3.7E-02	3.7E-02	1.7E-02	1.2E-02	1.2E-02	1.2E-02	1.2E-02	3.4E-03	3.4E-03	3.4E-03	2.3E-02	2.3E-02	2.1E-02	2.1E-02	1.7E-02	1.7E-02
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total Daily Onsite, Onroad Emissions (lb/day)	**3.9E-02**	**3.9E-02**	**3.7E-02**	**3.7E-02**	**1.7E-02**	**1.2E-02**	**1.2E-02**	**1.2E-02**	**1.2E-02**	**3.4E-03**	**3.4E-03**	**3.4E-03**	**2.3E-02**	**2.3E-02**	**2.1E-02**	**2.1E-02**	**1.7E-02**	**1.7E-02**
Vehicle Type	**2026**																	
	July	**August**	**September**	**October**	**November**	**December**	**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Delivery Trucks [a]	9.1E-01	9.1E-01	8.5E-01	8.5E-01	3.9E-01	2.9E-01	2.9E-01	2.9E-01	2.9E-01	7.8E-02	7.8E-02	7.8E-02	5.2E-01	5.2E-01	4.9E-01	4.9E-01	3.9E-01	3.9E-01
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total Monthly Oniste, Onroad Emissions (lb/month)	**9.1E-01**	**9.1E-01**	**8.5E-01**	**8.5E-01**	**3.9E-01**	**2.9E-01**	**2.9E-01**	**2.9E-01**	**2.9E-01**	**7.8E-02**	**7.8E-02**	**7.8E-02**	**5.2E-01**	**5.2E-01**	**4.9E-01**	**4.9E-01**	**3.9E-01**	**3.9E-01**
Total Project Onsite, Onroad Emissions (tons)																		

BHE Renewables

Morton Bay Construction Emissions
Onsite, Onroad Vehicle Idling Emissions
April 2023

Onsite, Onroad Vehicle Idling PM_{10} Emissions from BHER Morton Bay Construction

Vehicle Type	PM_{10} Emissions (lb/day)																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Delivery Trucks [a]	2.4E-06	3.8E-06	8.3E-06	1.3E-05	2.2E-05	2.2E-05	2.4E-05	3.3E-05	3.9E-05	3.9E-05	5.0E-05	5.6E-05	6.5E-05	5.9E-05	5.9E-05	6.4E-05	6.4E-05	5.9E-05
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.1E-06	2.2E-06	5.7E-06	5.5E-06	3.5E-06	2.2E-06	0.0E+00
Total Daily Onsite, Onroad Emissions (lb/day)	**2.4E-06**	**3.8E-06**	**8.3E-06**	**1.3E-05**	**2.2E-05**	**2.2E-05**	**2.4E-05**	**3.3E-05**	**3.9E-05**	**3.9E-05**	**5.0E-05**	**5.7E-05**	**6.7E-05**	**6.5E-05**	**6.5E-05**	**6.7E-05**	**6.6E-05**	**5.9E-05**

Vehicle Type	PM_{10} Emissions (lb/month) [b]																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Delivery Trucks [a]	5.6E-05	8.7E-05	1.9E-04	3.0E-04	5.1E-04	5.1E-04	5.6E-04	7.7E-04	9.1E-04	9.1E-04	1.2E-03	1.3E-03	1.5E-03	1.4E-03	1.4E-03	1.5E-03	1.5E-03	1.4E-03
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.5E-05	5.0E-05	1.3E-04	1.3E-04	8.1E-05	5.0E-05	0.0E+00
Total Monthly Oniste, Onroad Emissions (lb/month)	**5.6E-05**	**8.7E-05**	**1.9E-04**	**3.0E-04**	**5.1E-04**	**5.1E-04**	**5.6E-04**	**7.7E-04**	**9.1E-04**	**9.1E-04**	**1.2E-03**	**1.3E-03**	**1.5E-03**	**1.5E-03**	**1.5E-03**	**1.5E-03**	**1.5E-03**	**1.4E-03**
Total Project Onsite, Onroad Emissions (tons)	**1.4E-05**																	

Onsite, Onroad Vehicle Idling $PM_{2.5}$ Emissions from BHER Morton Bay Construction

Vehicle Type	$PM_{2.5}$ Emissions (lb/day)																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Delivery Trucks [a]	2.3E-06	3.6E-06	8.0E-06	1.2E-05	2.1E-05	2.1E-05	2.3E-05	3.2E-05	3.8E-05	3.8E-05	4.8E-05	5.4E-05	6.2E-05	5.7E-05	5.7E-05	6.1E-05	6.1E-05	5.6E-05
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.0E-06	2.1E-06	5.5E-06	5.2E-06	3.4E-06	2.1E-06	0.0E+00
Total Daily Onsite, Onroad Emissions (lb/day)	**2.3E-06**	**3.6E-06**	**8.0E-06**	**1.2E-05**	**2.1E-05**	**2.1E-05**	**2.3E-05**	**3.2E-05**	**3.8E-05**	**3.8E-05**	**4.8E-05**	**5.5E-05**	**6.4E-05**	**6.2E-05**	**6.2E-05**	**6.4E-05**	**6.3E-05**	**5.6E-05**

Vehicle Type	$PM_{2.5}$ Emissions (lb/month) [b]																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Delivery Trucks [a]	5.3E-05	8.3E-05	1.8E-04	2.8E-04	4.8E-04	4.8E-04	5.3E-04	7.3E-04	8.7E-04	8.7E-04	1.1E-03	1.2E-03	1.4E-03	1.3E-03	1.3E-03	1.4E-03	1.4E-03	1.3E-03
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.4E-05	4.8E-05	1.3E-04	1.2E-04	7.7E-05	4.8E-05	0.0E+00
Total Monthly Oniste, Onroad Emissions (lb/month)	**5.3E-05**	**8.3E-05**	**1.8E-04**	**2.8E-04**	**4.8E-04**	**4.8E-04**	**5.3E-04**	**7.3E-04**	**8.7E-04**	**8.7E-04**	**1.1E-03**	**1.3E-03**	**1.5E-03**	**1.4E-03**	**1.4E-03**	**1.5E-03**	**1.4E-03**	**1.3E-03**
Total Project Onsite, Onroad Emissions (tons)	**1.3E-05**																	

Onsite, Onroad Vehicle Idling CO_2 Emissions from BHER Morton Bay Construction

Vehicle Type	CO_2 Emissions (metric tons/day)																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Delivery Trucks [a]	1.4E-04	2.2E-04	4.9E-04	7.6E-04	1.3E-03	1.3E-03	1.4E-03	2.0E-03	2.3E-03	2.3E-03	2.9E-03	3.3E-03	3.8E-03	3.5E-03	3.5E-03	3.8E-03	3.8E-03	3.5E-03
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.3E-04	4.5E-04	1.2E-03	1.1E-03	7.2E-04	4.5E-04	0.0E+00
Total Daily Onsite, Onroad Emissions (metric tons/day)	**1.4E-04**	**2.2E-04**	**4.9E-04**	**7.6E-04**	**1.3E-03**	**1.3E-03**	**1.4E-03**	**2.0E-03**	**2.3E-03**	**2.3E-03**	**2.9E-03**	**3.5E-03**	**4.3E-03**	**4.7E-03**	**4.6E-03**	**4.5E-03**	**4.2E-03**	**3.5E-03**

Vehicle Type	CO_2 Emissions (metric tons/month) [b]																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Delivery Trucks [a]	3.3E-03	5.1E-03	1.1E-02	1.7E-02	3.0E-02	3.0E-02	3.3E-02	4.5E-02	5.3E-02	5.3E-02	6.8E-02	7.6E-02	8.8E-02	8.0E-02	8.0E-02	8.6E-02	8.6E-02	8.0E-02
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.2E-03	1.0E-02	2.7E-02	2.6E-02	1.7E-02	1.0E-02	0.0E+00
Total Monthly Onsite, Onroad Emissions (metric tons/month)	**3.3E-03**	**5.1E-03**	**1.1E-02**	**1.7E-02**	**3.0E-02**	**3.0E-02**	**3.3E-02**	**4.5E-02**	**5.3E-02**	**5.3E-02**	**6.8E-02**	**8.1E-02**	**9.9E-02**	**1.1E-01**	**1.1E-01**	**1.0E-01**	**9.7E-02**	**8.0E-02**
Total Project Oniste, Onroad Emissions (metric tons)	**1.66**																	

BHE Renewables

Morton Bay Construction Emissions
Onsite, Onroad Vehicle Idling Emissions
April 2023

Onsite, Onroad Vehicle Idling PM_{10} Emissions from BHER Morton Bay

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Delivery Trucks [a]	5.3E-05	5.3E-05	5.0E-05	5.0E-05	2.3E-05	1.7E-05	1.7E-05	1.7E-05	1.7E-05	4.5E-06	4.5E-06	4.5E-06	3.0E-05	3.0E-05	2.8E-05	2.8E-05	2.2E-05	2.2E-05
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total Daily Onsite, Onroad Emissions (lb/day)	**5.3E-05**	**5.3E-05**	**5.0E-05**	**5.0E-05**	**2.3E-05**	**1.7E-05**	**1.7E-05**	**1.7E-05**	**1.7E-05**	**4.5E-06**	**4.5E-06**	**4.5E-06**	**3.0E-05**	**3.0E-05**	**2.8E-05**	**2.8E-05**	**2.2E-05**	**2.2E-05**

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Delivery Trucks [a]	1.2E-03	1.2E-03	1.1E-03	1.1E-03	5.2E-04	3.8E-04	3.8E-04	3.8E-04	3.8E-04	1.0E-04	1.0E-04	1.0E-04	7.0E-04	7.0E-04	6.6E-04	6.6E-04	5.2E-04	5.2E-04
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total Monthly Oniste, Onroad Emissions (lb/month)	**1.2E-03**	**1.2E-03**	**1.1E-03**	**1.1E-03**	**5.2E-04**	**3.8E-04**	**3.8E-04**	**3.8E-04**	**3.8E-04**	**1.0E-04**	**1.0E-04**	**1.0E-04**	**7.0E-04**	**7.0E-04**	**6.6E-04**	**6.6E-04**	**5.2E-04**	**5.2E-04**
Total Project Onsite, Onroad Emissions (tons)																		

Onsite, Onroad Vehicle Idling $PM_{2.5}$ Emissions from BHER Morton Bay

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Delivery Trucks [a]	5.0E-05	5.0E-05	4.8E-05	4.8E-05	2.2E-05	1.6E-05	1.6E-05	1.6E-05	1.6E-05	4.4E-06	4.4E-06	4.4E-06	2.9E-05	2.9E-05	2.7E-05	2.7E-05	2.1E-05	2.1E-05
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total Daily Onsite, Onroad Emissions (lb/day)	**5.0E-05**	**5.0E-05**	**4.8E-05**	**4.8E-05**	**2.2E-05**	**1.6E-05**	**1.6E-05**	**1.6E-05**	**1.6E-05**	**4.4E-06**	**4.4E-06**	**4.4E-06**	**2.9E-05**	**2.9E-05**	**2.7E-05**	**2.7E-05**	**2.1E-05**	**2.1E-05**

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Delivery Trucks [a]	1.2E-03	1.2E-03	1.1E-03	1.1E-03	5.0E-04	3.7E-04	3.7E-04	3.7E-04	3.7E-04	1.0E-04	1.0E-04	1.0E-04	6.7E-04	6.7E-04	6.3E-04	6.3E-04	4.9E-04	4.9E-04
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total Monthly Oniste, Onroad Emissions (lb/month)	**1.2E-03**	**1.2E-03**	**1.1E-03**	**1.1E-03**	**5.0E-04**	**3.7E-04**	**3.7E-04**	**3.7E-04**	**3.7E-04**	**1.0E-04**	**1.0E-04**	**1.0E-04**	**6.7E-04**	**6.7E-04**	**6.3E-04**	**6.3E-04**	**4.9E-04**	**4.9E-04**
Total Project Onsite, Onroad Emissions (tons)																		

Onsite, Onroad Vehicle Idling CO_2 Emissions from BHER Morton Bay

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Delivery Trucks [a]	3.1E-03	3.1E-03	2.9E-03	2.9E-03	1.3E-03	9.8E-04	9.8E-04	9.8E-04	9.8E-04	2.7E-04	2.7E-04	2.7E-04	1.8E-03	1.8E-03	1.7E-03	1.7E-03	1.3E-03	1.3E-03
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total Daily Onsite, Onroad Emissions (metric tons/day)	**3.1E-03**	**3.1E-03**	**2.9E-03**	**2.9E-03**	**1.3E-03**	**9.8E-04**	**9.8E-04**	**9.8E-04**	**9.8E-04**	**2.7E-04**	**2.7E-04**	**2.7E-04**	**1.8E-03**	**1.8E-03**	**1.7E-03**	**1.7E-03**	**1.3E-03**	**1.3E-03**

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Delivery Trucks [a]	7.2E-02	7.2E-02	6.7E-02	6.7E-02	3.1E-02	2.3E-02	2.3E-02	2.3E-02	2.3E-02	6.2E-03	6.2E-03	6.2E-03	4.1E-02	4.1E-02	3.9E-02	3.9E-02	3.0E-02	3.0E-02
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total Monthly Onsite, Onroad Emissions (metric tons/month)	**7.2E-02**	**7.2E-02**	**6.7E-02**	**6.7E-02**	**3.1E-02**	**2.3E-02**	**2.3E-02**	**2.3E-02**	**2.3E-02**	**6.2E-03**	**6.2E-03**	**6.2E-03**	**4.1E-02**	**4.1E-02**	**3.9E-02**	**3.9E-02**	**3.0E-02**	**3.0E-02**
Total Project Oniste, Onroad Emissions (metric tons)																		

BHE Renewables

Morton Bay Construction Emissions

Onsite, Onroad Vehicle Idling Emissions
April 2023

Onsite, Onroad Vehicle Idling CH_4 Emissions from BHER Morton Bay Construction

Vehicle Type	CH_4 Emissions (metric tons/day)																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Delivery Trucks [a]	2.1E-09	3.3E-09	7.3E-09	1.1E-08	1.9E-08	1.9E-08	2.1E-08	2.9E-08	3.4E-08	3.4E-08	4.4E-08	4.9E-08	5.7E-08	5.2E-08	5.2E-08	5.6E-08	5.6E-08	5.1E-08
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.6E-09	9.2E-09	2.4E-08	2.3E-08	1.5E-08	9.2E-09	0.0E+00
Total Daily Onsite, Onroad Emissions (metric tons/day)	**2.1E-09**	**3.3E-09**	**7.3E-09**	**1.1E-08**	**1.9E-08**	**1.9E-08**	**2.1E-08**	**2.9E-08**	**3.4E-08**	**3.4E-08**	**4.4E-08**	**5.4E-08**	**6.6E-08**	**7.6E-08**	**7.5E-08**	**7.0E-08**	**6.5E-08**	**5.1E-08**
Vehicle Type	**CH_4 Emissions (metric tons/month) [b]**																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Delivery Trucks [a]	4.9E-08	7.6E-08	1.7E-07	2.6E-07	4.4E-07	4.4E-07	4.9E-07	6.7E-07	7.9E-07	7.9E-07	1.0E-06	1.1E-06	1.3E-06	1.2E-06	1.2E-06	1.3E-06	1.3E-06	1.2E-06
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.1E-07	2.1E-07	5.5E-07	5.3E-07	3.4E-07	2.1E-07	0.0E+00
Total Monthly Onsite, Onroad Emissions (metric tons/month)	**4.9E-08**	**7.6E-08**	**1.7E-07**	**2.6E-07**	**4.4E-07**	**4.4E-07**	**4.9E-07**	**6.7E-07**	**7.9E-07**	**7.9E-07**	**1.0E-06**	**1.2E-06**	**1.5E-06**	**1.7E-06**	**1.7E-06**	**1.6E-06**	**1.5E-06**	**1.2E-06**
Total Project Oniste, Onroad Emissions (metric tons)	**2.5E-05**																	

Onsite, Onroad Vehicle Idling N_2O Emissions from BHER Morton Bay Construction

Vehicle Type	N_2O Emissions (metric tons/day)																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Delivery Trucks [a]	2.9E-10	4.6E-10	1.0E-09	1.6E-09	2.7E-09	2.7E-09	2.9E-09	4.0E-09	4.8E-09	4.8E-09	6.0E-09	6.8E-09	7.9E-09	7.1E-09	7.1E-09	7.7E-09	7.7E-09	7.1E-09
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	7.1E-10	1.4E-09	3.7E-09	3.5E-09	2.3E-09	1.4E-09	0.0E+00
Total Daily Onsite, Onroad Emissions (metric tons/day)	**2.9E-10**	**4.6E-10**	**1.0E-09**	**1.6E-09**	**2.7E-09**	**2.7E-09**	**2.9E-09**	**4.0E-09**	**4.8E-09**	**4.8E-09**	**6.0E-09**	**7.5E-09**	**9.3E-09**	**1.1E-08**	**1.1E-08**	**9.9E-09**	**9.1E-09**	**7.1E-09**
Vehicle Type	**N_2O Emissions (metric tons/month) [b]**																	
	2024												2025					
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
Delivery Trucks [a]	6.7E-09	1.1E-08	2.3E-08	3.6E-08	6.1E-08	6.1E-08	6.7E-08	9.3E-08	1.1E-07	1.1E-07	1.4E-07	1.6E-07	1.8E-07	1.6E-07	1.6E-07	1.8E-07	1.8E-07	1.6E-07
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.6E-08	3.3E-08	8.5E-08	8.1E-08	5.2E-08	3.3E-08	0.0E+00
Total Monthly Onsite, Onroad Emissions (metric tons/month)	**6.7E-09**	**1.1E-08**	**2.3E-08**	**3.6E-08**	**6.1E-08**	**6.1E-08**	**6.7E-08**	**9.3E-08**	**1.1E-07**	**1.1E-07**	**1.4E-07**	**1.7E-07**	**2.1E-07**	**2.5E-07**	**2.5E-07**	**2.3E-07**	**2.1E-07**	**1.6E-07**
Total Project Oniste, Onroad Emissions (metric tons)	**3.5E-06**																	

Notes:

[a] It is assumed that, upon traveling to the site, haul trucks and delivery trucks can idle up to 5 minutes for loading/unloading before leaving the site. This equates to: 0.083 idle-hrs/day.

[b] Per information provided by the Applicant's engineering contractor, it is assumed that there are 23 working days per month.

BHE Renewables

Morton Bay Construction Emissions
Onsite, Onroad Vehicle Idling Emissions
April 2023

Onsite, Onroad Vehicle Idling CH_4 Emissions from BHER Morton Bay

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Delivery Trucks [a]	4.6E-08	4.6E-08	4.3E-08	4.3E-08	2.0E-08	1.5E-08	1.5E-08	1.5E-08	1.5E-08	4.0E-09	4.0E-09	4.0E-09	2.7E-08	2.7E-08	2.5E-08	2.5E-08	2.0E-08	2.0E-08
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total Daily Onsite, Onroad Emissions (metric tons/day)	**4.6E-08**	**4.6E-08**	**4.3E-08**	**4.3E-08**	**2.0E-08**	**1.5E-08**	**1.5E-08**	**1.5E-08**	**1.5E-08**	**4.0E-09**	**4.0E-09**	**4.0E-09**	**2.7E-08**	**2.7E-08**	**2.5E-08**	**2.5E-08**	**2.0E-08**	**2.0E-08**

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Delivery Trucks [a]	1.1E-06	1.1E-06	1.0E-06	1.0E-06	4.6E-07	3.4E-07	3.4E-07	3.4E-07	3.4E-07	9.1E-08	9.1E-08	9.1E-08	6.1E-07	6.1E-07	5.7E-07	5.7E-07	4.5E-07	4.5E-07
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total Monthly Onsite, Onroad Emissions (metric tons/month)	**1.1E-06**	**1.1E-06**	**1.0E-06**	**1.0E-06**	**4.6E-07**	**3.4E-07**	**3.4E-07**	**3.4E-07**	**3.4E-07**	**9.1E-08**	**9.1E-08**	**9.1E-08**	**6.1E-07**	**6.1E-07**	**5.7E-07**	**5.7E-07**	**4.5E-07**	**4.5E-07**
Total Project Oniste, Onroad Emissions (metric tons)																		

Onsite, Onroad Vehicle Idling N_2O Emissions from BHER Morton Bay

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Delivery Trucks [a]	6.4E-09	6.4E-09	6.0E-09	6.0E-09	2.7E-09	2.0E-09	2.0E-09	2.0E-09	2.0E-09	5.5E-10	5.5E-10	5.5E-10	3.7E-09	3.7E-09	3.4E-09	3.4E-09	2.7E-09	2.7E-09
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total Daily Onsite, Onroad Emissions (metric tons/day)	**6.4E-09**	**6.4E-09**	**6.0E-09**	**6.0E-09**	**2.7E-09**	**2.0E-09**	**2.0E-09**	**2.0E-09**	**2.0E-09**	**5.5E-10**	**5.5E-10**	**5.5E-10**	**3.7E-09**	**3.7E-09**	**3.4E-09**	**3.4E-09**	**2.7E-09**	**2.7E-09**

Vehicle Type	2026																	
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Delivery Trucks [a]	1.5E-07	1.5E-07	1.4E-07	1.4E-07	6.3E-08	4.6E-08	4.6E-08	4.6E-08	4.6E-08	1.3E-08	1.3E-08	1.3E-08	8.4E-08	8.4E-08	7.9E-08	7.9E-08	6.2E-08	6.2E-08
Material Hauling Trucks [a]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total Monthly Onsite, Onroad Emissions (metric tons/month)	**1.5E-07**	**1.5E-07**	**1.4E-07**	**1.4E-07**	**6.3E-08**	**4.6E-08**	**4.6E-08**	**4.6E-08**	**4.6E-08**	**1.3E-08**	**1.3E-08**	**1.3E-08**	**8.4E-08**	**8.4E-08**	**7.9E-08**	**7.9E-08**	**6.2E-08**	**6.2E-08**
Total Project Oniste, Onroad Emissions (metric tons)																		

Notes:
[a] It is assumed that, upon traveling to the site, haul trucks and delivery truck
[b] Per information provided by the Applicant's engineering contractor, it is as

BHE Renewables

Morton Bay Construction Emissions
Equations Used to Calculate Criteria Pollutant and GHG Emissions
April 2023

Equations Used to Calculate Emissions from BHER Morton Bay Construction

Emission Source	Pollutants	Equations	Variables
ruction Equipment Ex	CO, VOC, NO_X, SO_X, PM_{10}, and $PM_{2.5}$	$E_m = EF \times N \times Hp \times L \times H / 453.6$	E_m = Monthly Emissions (lb/month)
			EF = Emission factor (g/bhp-hr)
			N = Number of pieces of equipment
			Hp = Average horsepower
			L = Average load factor
			H = Hours per month
			453.6 = Conversion from g to lb
		$E_d = E_m / D$	E_d = Daily Emissions (lb/day)
			E_m = Monthly Emissions (lb/month)
			D = Number of construction days per month
		$E_t = \Sigma E_m / 2{,}000$	E_t = Total Project Emissions (tons)
			Em = Monthly Emissions (lb/month)
			2,000 = Conversion from lb to tons
	CO_2, CH_4 and N_2O	= EF x N x Hp x L x H / 1000 x 0.	E_m = Monthly Emissions (metric tons/month)
			EF = Emission factor (g/bhp-hr)
			N = Number of pieces of equipment
			Hp = Average horsepower
			L = Average load factor
			H = Hours per month
			1,000 = Conversion from g to kg
			0.001 = Conversion from kg to metric tons
		$E_d = E_m / D$	E_d = Daily Emissions (metric tons/day)
			E_m = Emissions (metric tons/month)
			D = Number of construction days per month
		$E_t = \Sigma E_m$	E_m = Emissions (metric tons/month)
			E_t = Total Project Emissions (metric tons)
Vehicle Exhaust and Paved/Unpaved Fugitive PM_{10} and $PM_{2.5}$	CO, VOC, NO_X, SO_X, PM_{10}, and $PM_{2.5}$	$E_d = N \times VMT \times EF / 453.6$	E_d = Daily Emissions (lb/day)
			N = Number of vehicles
			VMT = Vehicle miles traveled per day (miles/day)
			EF = EMFAC2021 emission factor (g/mile). Paved and unpaved road fugitive PM_{10} and $PM_{2.5}$ emission factors calculated per Section 5.1.4 of Appendix C of the *CalEEMod User's Guide* (ICF 2022).
			453.6 = Conversion from g to lb
		$E_m = E_d \times D$	E_m = Monthly Emissions (lb/month)
			E_d = Daily Emissions (lb/day)
			D = Number of construction days per month
		$E_t = \Sigma E_m / 2{,}000$	E_t = Total Project Emissions (tons)
			E_m = Monthly Emissions (lb/month)
			2,000 = Conversion from lb to tons
	CO_2, CH_4, and N_2O	$E_d = N \times VMT \times EF / 1000 \times 0.001$	Ed = Daily Emissions (metric tons/day)
			N = Number of vehicles
			VMT = Vehicle miles traveled per day (miles/day)
			EF = EMFAC2021 emission factor (g/mile).
			1,000 = Conversion from g to kg
			0.001 = Conversion from kg to metric tons
		$E_m = E_d \times D$	E_m = Monthly Emissions (metric tons/month)
			E_d = Daily Emissions (metric tons/day)
			D = Number of construction days per month
		$E_t = \Sigma E_m / 2{,}000$	E_t = Total Project Emissions (metric tons)
			E_m = Monthly Emissions (metric tons/month)

BHE Renewables

Morton Bay Construction Emissions
Equations Used to Calculate Criteria Pollutant and GHG Emissions
April 2023

Equations Used to Calculate Emissions from BHER Morton Bay Construction

Emission Source	Pollutants	Equations	Variables
Vehicle Idling	CO, VOC, NO_X, SO_X, PM_{10}, and $PM_{2.5}$	$E_d = N \times I \times EF / 453.6$	E_d = Daily Emissions (lb/day)
			N = Number of vehicles
			I = Idle time per vehicle per day (idle-hr/day)
			EF = EMFAC2021 emission factor (g/idle-hr)
			453.6 = Conversion from g to lb
		$E_m = E_d \times D$	E_m = Monthly Emissions (lb/month)
			E_d = Daily Emissions (lb/day)
			D = Number of construction days per month
		$E_t = \Sigma E_m / 2{,}000$	E_t = Total Project Emissions (tons)
			E_m = Monthly Emissions (lb/month)
			2,000 = Conversion from lb to tons
	N_2O, CO_2 and CH_4	$E_d = N \times I \times EF / 1{,}000 \times 0.001$	E_d = Daily Emissions (metric tons/day)
			N = Number of vehicles
			I = Idle time per vehicle per day (idle-hr/day)
			EF = EMFAC2021 emission factor (g/idle-hr)
			1,000 = Conversion from g to kg
			0.001 = Conversion from kg to metric tons
		$E_m = E_d \times D$	E_m = Monthly Emissions (metric tons/month)
			E_d = Daily Emissions (metric tons/day)
			D = Number of construction days per month
		$E_t = \Sigma E_m$	E_t = Total Project Emissions (metric tons)
			E_m = Monthly Emissions (metric tons/month)
Fugitive PM_{10} and $PM_{2.5}$ from Truck Dumping/Loading	PM_{10} and $PM_{2.5}$	$E_d = V \times 1.2641662 \times EF / D$	E_d = Daily Emissions (lb/day)
			V= Volume of material dumped (cubic yards/month)
			1.2641662 = Conversion from cubic yards to tons
			EF = Fugitive PM_{10} and $PM_{2.5}$ emission factors (lb/ton), calculated per Section 4.4.2 of Appendix C of the *CalEEMod User's Guide* (ICF 2022).
			D = Number of construction days per month
		$E_m = E_d \times D$	E_m = Monthly Emissions (lb/month)
			E_d = Daily Emissions (lb/day)
			D = Number of construction days per month
		$E_t = \Sigma E_m / 2{,}000$	E_m = Monthly Emissions (lb/month)
			E_t = Total Project Emissions (tons)
			2,000 = Conversion from lb to tons
Fugitive PM_{10} and $PM_{2.5}$ from Grading	PM_{10} and $PM_{2.5}$	$E_d = EF \times A / W \times 43{,}560 / 5{,}280 / D$	E_d = Daily Emissions (lb/day)
			EF = Fugitive PM_{10} and $PM_{2.5}$ emission factors (lb/mile), calculated per Section 4.4.1 of Appendix C of the *CalEEMod User's Guide* (ICF 2022).
			A = Graded area (acres/month)
			W = Grading equipment blade width (ft)
			43,560 = Conversion factor from square feet to acres
			5,280 = Conversion factor from feet to miles
			D = Number of construction days per month
		$E_m = E_d \times D$	E_m = Monthly Emissions (lb/month)
			E_d = Daily Emissions (lb/day)
			D = Number of construction days per month
		$E_t = \Sigma E_m / 2{,}000$	E_m = Monthly Emissions (lb/month)
			E_t = Total Project Emissions (tons)
			2,000 = Conversion from lb to tons
Paving	VOC	$E_d = A / M / D \times EF$	EF = VOC emission factor (lb/acre), calculated per Section 4.9 of Appendix C of the *CalEEMod User's Guide* (ICF
			A = Area of paved areas (acres)
			E_d = Daily Emissions (lb/day)
			D = Number of construction days per month
			M = Number of paving construction months
		$E_m = E_d \times D$	E_m = Monthly Emissions (lb/month)
			E_d = Daily Emissions (lb/day)
			D = Number of construction days per month
		$E_t = \Sigma E_m / 2{,}000$	E_t = Total Project Emissions (tons)
			E_m = Monthly Emissions (lb/month)
			2,000 = Conversion from lb to tons

BHE Renewables

Morton Bay Construction Emissions
Vehicle Criteria Pollutant Emission Factors
April 2023

Vehicle Exhaust Emission Factors for BHER Morton Bay Construction

Vehicle Type	Location of Vehicle Operation	Vehicle Class [a]	2024 Exhaust Emission Factors (g/mile) [b, c, d]									Paved Road Emission Factors (g/mile) [e]	
			CO	ROG	SO_X	NO_X	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O	PM_{10}	$PM_{2.5}$
Delivery Truck	Onroad, Offsite	Heavy/Medium-duty Diesel	0.087	0.013	0.011	1.126	0.078	0.033	1201.756	0.001	0.002	0.300	0.075
Pickup Truck	Onsite, Offroad	Light-duty truck	3.494	0.109	0.006	0.211	0.019	0.010	569.125	0.024	0.001	N/A	N/A
Haul Trucks	Onroad, Offsite	Heavy-duty Diesel	0.094	0.010	0.014	1.239	0.104	0.043	1434.237	0.000	0.003	0.300	0.075
Construction Worker Commute	Onroad	Light-duty Auto/Truck	2.147	0.032	0.003	0.130	0.015	0.006	306.828	0.008	0.001	0.300	0.075

Vehicle Idling Emission Factors for BHER Morton Bay Construction

Vehicle Type	Location of Vehicle Operation	Vehicle Class [a]	2024 Idle Emission Factors (g/idle-hour) [b, c, d]								
			CO	ROG	SO_X	NO_X	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O
Delivery Truck	Onroad, Offsite	Heavy/Medium-duty Diesel	22.402	1.369	0.041	24.638	0.033	0.032	4289.736	0.064	0.009
Haul Truck	Onroad, Offsite	Heavy-duty Diesel	34.770	2.368	0.052	28.143	0.012	0.011	5422.300	0.110	0.017

Notes:

[a] The vehicle classes are represented as follows:

Light-duty Truck: Assumed to be 50% LDT1 Gas and 50% LDT2 Gas values, based on an understanding of the vehicle type.
Heavy-duty Diesel: Assumed to be 100% HHDT DSL values, per Section 4.6.4 of Appendix C of the *CalEEMod User's Guide* (ICF 2022).
Heavy/Medium-duty Diesel: Assumed to be 50% HHDT DSL and 50% MHDT DSL values, per Section 4.6.4 of Appendix C of the *CalEEMod User's Guide* (ICF 2022).
Light-duty Auto/Truck: Assumed to be 25% LDA Gas, 50% LDT1 Gas, and 25% LDT2 Gas values, per Section 4.6.4 of Appendix C of the *CalEEMod User's Guide* (ICF 2022) and assuming workers typically drive gasoline-fueled vehicles.

[b] Exhaust and idling emission factors from EMFAC2021 for Imperial County, calendar year 2024. A speed of 40 mph was assumed for all delivery trucks, haul trucks, and worker commutes. A speed of 15 mph was assumed for onsite pickup trucks. An average temperature of 78°F and humidity of 40% were used per Table B-1 of *CT-EMFAC: A Computer Model to Estimate Transportation Project Emissions* (UC Davis 2007).

[c] Although construction will occur bewteen 2024 and 2026, 2024 emission factors were used, as appropriate, to provide a more conservative emissions estimate.

[d] ROG and VOC are assumed to be equivalent.

[e] Paved road emission factors calculated using CalEEMod methodology, as described below.

Derivation of Paved Road Emission Factors
Vehicles on Paved Roads

Parameter	PM_{10}	$PM_{2.5}$
Average Weight [a]	2.4	2.4
k [a]	1.0	0.25
sL [a]	0.1	0.1
Emission Factor (g/mile) [b]	0.300	0.075

Notes:

[a] Average Weight, sL, and k taken as the CalEEMod statewide defaults from Section 5.1.4 of Appendix C of the *CalEEMod User's Guide* (ICF 2022).

[b] Emission factor calculated using the following equation from Section 5.1.4 of Appendix C of the *CalEEMod User's Guide* (ICF 2022):

Emission Factor (g/mile) = k (g/mile) x [sL (g/m^2)]$^{0.91}$ x [Average Weight (tons)]$^{1.02}$

Precipitation days were not accounted for in the calculations to be conservative.

BHE Renewables

Morton Bay Construction Emissions

Construction Equipment Criteria Pollutant Emission Factors

April 2023

Construction Equipment Emission Factors for BHER Morton Bay Construction

Equipment [a]	Equipment Type	Fuel	Year	Hours per Month [b]	Horsepower [c]	Load Factor [c]	2024 Emission Factors (g/bhp-hr) [d, e]								
							CO	VOC	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O
Onsite															
Excavator	Excavators	Diesel	2024	460	36	0.38	4.100	0.090	2.750	0.005	0.010	0.010	587.317	0.024	0.005
Backhoe	Tractors/Loaders/Backhoes	Diesel	2024	460	84	0.37	3.700	0.050	0.260	0.005	0.010	0.010	529.933	0.021	0.004
10 Wheel Dump Truck [f]	Off-Highway Trucks	Diesel	2024	460	376	0.38	1.195	0.183	1.236	0.005	0.044	0.041	527.763	0.021	0.004
Dozer	Rubber Tired Dozers	Diesel	2024	460	367	0.40	2.600	0.050	0.260	0.005	0.010	0.010	532.203	0.022	0.004
Front End Loader	Rubber Tired Loaders	Diesel	2024	460	150	0.36	3.700	0.050	0.260	0.005	0.010	0.010	526.332	0.021	0.004
150 Ton Hydraulic Crane	Cranes	Diesel	2024	460	367	0.29	2.600	0.050	0.260	0.005	0.010	0.010	527.532	0.021	0.004
75 Ton Hydraulic Crane	Cranes	Diesel	2024	460	367	0.29	2.600	0.050	0.260	0.005	0.010	0.010	527.532	0.021	0.004
35 Ton Hydraulic Crane	Cranes	Diesel	2024	460	367	0.29	2.600	0.050	0.260	0.005	0.010	0.010	527.532	0.021	0.004
Pile Driver	Other Construction Equipment	Diesel	2024	460	82	0.42	3.700	0.050	0.260	0.005	0.010	0.010	528.454	0.021	0.004
Fork Lift	Forklifts	Diesel	2024	460	82	0.20	3.700	0.050	0.260	0.005	0.010	0.010	527.040	0.021	0.004
Grader	Graders	Diesel	2024	460	148	0.41	3.700	0.050	0.260	0.005	0.010	0.010	530.170	0.022	0.004
Drill Rigs	Bore/Drill Rigs	Diesel	2024	460	83	0.50	3.700	0.050	0.260	0.005	0.010	0.010	521.434	0.021	0.004
Drilling Diesel Generator (Kenai)	Generator Sets	Diesel	2024	230	1482	0.74	2.610	0.382	0.500	0.007	0.149	0.149	568.327	0.023	0.005
Drilling Rental Generator	Generator Sets	Diesel	2024	230	314	0.74	2.610	0.298	0.298	0.007	0.014	0.014	568.327	0.023	0.005
Drilling Pump	Pumps	Diesel	2024	230	74	0.74	3.729	0.280	3.224	0.007	0.095	0.095	568.309	0.023	0.005
Drilling Forklift	Rough Terrain Forklifts	Diesel	2024	230	96	0.40	3.700	0.050	0.260	0.005	0.010	0.010	528.511	0.021	0.004
Drilling Manlift	Aerial Lifts	Diesel	2024	230	46	0.31	4.100	0.090	2.750	0.005	0.010	0.010	586.903	0.024	0.005
Drilling Backhoe	Tractors/Loaders/Backhoes	Diesel	2024	230	84	0.37	3.700	0.050	0.260	0.005	0.010	0.010	529.933	0.021	0.004
Drilling Light Tower	Other General Industrial Equipment	Diesel	2024	230	35	0.34	4.100	0.090	2.750	0.005	0.010	0.010	588.151	0.024	0.005
Pavers	Pavers	Diesel	2024	230	81	0.42	3.700	0.050	0.260	0.005	0.010	0.010	526.332	0.021	0.004
Paving Equipment	Paving Equipment	Diesel	2024	230	89	0.36	3.700	0.050	0.260	0.005	0.010	0.010	528.115	0.021	0.004
Paving Rollers	Rollers	Diesel	2024	230	36	0.38	4.100	0.090	2.750	0.005	0.010	0.010	586.798	0.024	0.005
Paving Tractor/Loader/Backhoe	Tractors/Loaders/Backhoes	Diesel	2024	230	84	0.37	3.700	0.050	0.260	0.005	0.010	0.010	529.933	0.021	0.004
Electrical Generators	Generator Sets	Diesel	2024	460	14	0.74	2.881	0.546	4.373	0.008	0.180	0.166	568.315	0.023	0.005
Concrete Pump Trucks [f]	Off-Highway Trucks	Diesel	2024	460	376	0.38	1.195	0.183	1.236	0.005	0.044	0.041	527.763	0.021	0.004
Diesel Welders	Welders	Diesel	2024	460	46	0.45	4.100	0.090	2.750	0.007	0.010	0.010	568.290	0.023	0.005
Compactor	Plate Compactors	Diesel	2024	460	8	0.43	3.470	0.547	4.143	0.009	0.162	0.149	568.353	0.023	0.005
Stake Truck [f]	Off-Highway Trucks	Diesel	2024	460	376	0.38	1.195	0.183	1.236	0.005	0.044	0.041	527.763	0.021	0.004
Water Truck (shared between 3 projects) [f]	Off-Highway Trucks	Diesel	2024	460	376	0.38	1.195	0.183	1.236	0.005	0.044	0.041	527.763	0.021	0.004
Air Compressor	Air Compressors	Diesel	2024	460	37	0.48	4.100	0.090	2.750	0.007	0.010	0.010	568.361	0.023	0.005
Light Towers	Other General Industrial Equipment	Diesel	2024	460	35	0.34	4.100	0.090	2.750	0.005	0.010	0.010	588.151	0.024	0.005
Heavy Lift Lattice boom Main Crane	Cranes	Diesel	2024	460	367	0.29	2.600	0.050	0.260	0.005	0.010	0.010	527.532	0.021	0.004
Heavy Lift Lattice boom Tail Crane	Cranes	Diesel	2024	460	367	0.29	2.600	0.050	0.260	0.005	0.010	0.010	527.532	0.021	0.004
Heavy lift Gantry Crane	Cranes	Diesel	2024	460	367	0.29	2.600	0.050	0.260	0.005	0.010	0.010	527.532	0.021	0.004

Notes:

[a] Assumed all equipment is fired with diesel fuel.

[b] Hours per month calculated based on the following schedule:

Work hours per day: 20

Work days per month: 23

Default CalEEMOD value for highest available horsepower bin (Table G-11).

Data supplied by the Applicant's engineering contractor.

Equipment emissions factors assumed to be Tier 4 final (Table G-13).

[c] Unless color coded as being provided by the Applicant's engineering contractor, construction equipment horsepowers and load factors taken from Table G-12 of Appendix G of the *CalEEMod User's Guide* (ICF 2022).

[d] Unless color coded as being provided by the Applicant's engineering contractor or Tier 4-compliant, construction equipment emission factors taken from Table G-11 of Appendix G of the *CalEEMod User's Guide* (ICF 2022). Construction equipment emission factors for Tier 4-compliant equipment taken from Table G-13 of Appendix G of the *CalEEMod User's Guide* (ICF 2022).

[e] Although construction will occur bewteen 2024 and 2026, 2024 emission factors were used for all calculations to provide a more conservative emissions estimate.

[f] Horsepower, load factor, and emission factors for Off-Highway Trucks were assumed representative of Water, Stake, Dump, and Concrete Trucks.

BHE Renewables

Morton Bay Construction Air Quality Impacts Analysis

Point Source Parameters

April 2023

Morton Bay Construction Modeled Point Source Parameters

Source ID	Source Type	Stack Release Type	Source Description	Easting (X) (m)	Northing (Y) (m)	Base Elevation (m)	Stack Height (m)	Temperature (K)	Exit Velocity (m/s)	Stack Diameter (m)
POINT_1	POINT	HORIZONTAL	Construction Point Source 1	631,746.83	3,674,943.55	-69.36	4.60	533.00	18.00	0.13
POINT_2	POINT	HORIZONTAL	Construction Point Source 2	631,771.83	3,674,943.55	-69.36	4.60	533.00	18.00	0.13
POINT_3	POINT	HORIZONTAL	Construction Point Source 3	631,796.83	3,674,943.55	-69.36	4.60	533.00	18.00	0.13
POINT_4	POINT	HORIZONTAL	Construction Point Source 4	631,821.83	3,674,943.55	-69.36	4.60	533.00	18.00	0.13
POINT_5	POINT	HORIZONTAL	Construction Point Source 5	631,846.83	3,674,943.55	-69.36	4.60	533.00	18.00	0.13
POINT_6	POINT	HORIZONTAL	Construction Point Source 6	631,871.83	3,674,943.55	-69.36	4.60	533.00	18.00	0.13
POINT_7	POINT	HORIZONTAL	Construction Point Source 7	631,896.83	3,674,943.55	-69.36	4.60	533.00	18.00	0.13
POINT_8	POINT	HORIZONTAL	Construction Point Source 8	631,921.83	3,674,943.55	-69.36	4.60	533.00	18.00	0.13
POINT_9	POINT	HORIZONTAL	Construction Point Source 9	631,946.83	3,674,943.55	-69.36	4.60	533.00	18.00	0.13
POINT_10	POINT	HORIZONTAL	Construction Point Source 10	631,971.83	3,674,943.55	-69.36	4.60	533.00	18.00	0.13
POINT_11	POINT	HORIZONTAL	Construction Point Source 11	631,996.83	3,674,943.55	-69.36	4.60	533.00	18.00	0.13
POINT_12	POINT	HORIZONTAL	Construction Point Source 12	632,021.83	3,674,943.55	-69.36	4.60	533.00	18.00	0.13
POINT_13	POINT	HORIZONTAL	Construction Point Source 13	632,046.83	3,674,943.55	-69.36	4.60	533.00	18.00	0.13
POINT_14	POINT	HORIZONTAL	Construction Point Source 14	632,071.83	3,674,943.55	-69.36	4.60	533.00	18.00	0.13
POINT_15	POINT	HORIZONTAL	Construction Point Source 15	632,096.83	3,674,943.55	-69.36	4.60	533.00	18.00	0.13
POINT_16	POINT	HORIZONTAL	Construction Point Source 16	632,121.83	3,674,943.55	-69.36	4.60	533.00	18.00	0.13
POINT_17	POINT	HORIZONTAL	Construction Point Source 17	632,146.83	3,674,943.55	-69.36	4.60	533.00	18.00	0.13
POINT_18	POINT	HORIZONTAL	Construction Point Source 18	632,171.83	3,674,943.55	-69.36	4.60	533.00	18.00	0.13
POINT_19	POINT	HORIZONTAL	Construction Point Source 19	632,196.83	3,674,943.55	-69.36	4.60	533.00	18.00	0.13
POINT_20	POINT	HORIZONTAL	Construction Point Source 20	632,221.83	3,674,943.55	-69.36	4.60	533.00	18.00	0.13
POINT_21	POINT	HORIZONTAL	Construction Point Source 21	632,246.83	3,674,943.55	-69.36	4.60	533.00	18.00	0.13
POINT_22	POINT	HORIZONTAL	Construction Point Source 22	632,271.83	3,674,943.55	-69.36	4.60	533.00	18.00	0.13
POINT_23	POINT	HORIZONTAL	Construction Point Source 23	632,296.83	3,674,943.55	-69.36	4.60	533.00	18.00	0.13
POINT_24	POINT	HORIZONTAL	Construction Point Source 24	632,321.83	3,674,943.55	-69.36	4.60	533.00	18.00	0.13
POINT_25	POINT	HORIZONTAL	Construction Point Source 25	631,746.83	3,674,918.55	-69.36	4.60	533.00	18.00	0.13
POINT_26	POINT	HORIZONTAL	Construction Point Source 26	631,746.83	3,674,893.55	-69.36	4.60	533.00	18.00	0.13
POINT_27	POINT	HORIZONTAL	Construction Point Source 27	631,746.83	3,674,868.55	-69.36	4.60	533.00	18.00	0.13
POINT_28	POINT	HORIZONTAL	Construction Point Source 28	631,746.83	3,674,843.55	-69.36	4.60	533.00	18.00	0.13
POINT_29	POINT	HORIZONTAL	Construction Point Source 29	631,746.83	3,674,818.55	-69.36	4.60	533.00	18.00	0.13
POINT_30	POINT	HORIZONTAL	Construction Point Source 30	631,746.83	3,674,793.55	-69.36	4.60	533.00	18.00	0.13
POINT_31	POINT	HORIZONTAL	Construction Point Source 31	631,746.83	3,674,768.55	-69.36	4.60	533.00	18.00	0.13
POINT_32	POINT	HORIZONTAL	Construction Point Source 32	631,746.83	3,674,743.55	-69.36	4.60	533.00	18.00	0.13
POINT_33	POINT	HORIZONTAL	Construction Point Source 33	631,771.83	3,674,918.55	-69.36	4.60	533.00	18.00	0.13
POINT_34	POINT	HORIZONTAL	Construction Point Source 34	631,771.83	3,674,893.55	-69.36	4.60	533.00	18.00	0.13
POINT_35	POINT	HORIZONTAL	Construction Point Source 35	631,771.83	3,674,868.55	-69.36	4.60	533.00	18.00	0.13
POINT_36	POINT	HORIZONTAL	Construction Point Source 36	631,771.83	3,674,843.55	-69.36	4.60	533.00	18.00	0.13
POINT_37	POINT	HORIZONTAL	Construction Point Source 37	631,771.83	3,674,818.55	-69.36	4.60	533.00	18.00	0.13
POINT_38	POINT	HORIZONTAL	Construction Point Source 38	631,771.83	3,674,793.55	-69.36	4.60	533.00	18.00	0.13
POINT_39	POINT	HORIZONTAL	Construction Point Source 39	631,771.83	3,674,768.55	-69.36	4.60	533.00	18.00	0.13
POINT_40	POINT	HORIZONTAL	Construction Point Source 40	631,771.83	3,674,743.55	-69.36	4.60	533.00	18.00	0.13

BHE Renewables

Morton Bay Construction Air Quality Impacts Analysis

Point Source Parameters

April 2023

Morton Bay Construction Modeled Point Source Parameters

Source ID	Source Type	Stack Release Type	Source Description	Easting (X) (m)	Northing (Y) (m)	Base Elevation (m)	Stack Height (m)	Temperature (K)	Exit Velocity (m/s)	Stack Diameter (m)
POINT_41	POINT	HORIZONTAL	Construction Point Source 41	631,771.83	3,674,718.55	-69.36	4.60	533.00	18.00	0.13
POINT_42	POINT	HORIZONTAL	Construction Point Source 42	631,771.83	3,674,693.55	-69.36	4.60	533.00	18.00	0.13
POINT_43	POINT	HORIZONTAL	Construction Point Source 43	631,771.83	3,674,668.55	-69.36	4.60	533.00	18.00	0.13
POINT_44	POINT	HORIZONTAL	Construction Point Source 44	631,771.83	3,674,643.55	-69.36	4.60	533.00	18.00	0.13
POINT_45	POINT	HORIZONTAL	Construction Point Source 45	631,771.83	3,674,618.55	-69.36	4.60	533.00	18.00	0.13
POINT_46	POINT	HORIZONTAL	Construction Point Source 46	631,771.83	3,674,593.55	-69.36	4.60	533.00	18.00	0.13
POINT_47	POINT	HORIZONTAL	Construction Point Source 47	631,771.83	3,674,568.55	-69.36	4.60	533.00	18.00	0.13
POINT_48	POINT	HORIZONTAL	Construction Point Source 48	631,771.83	3,674,543.55	-69.36	4.60	533.00	18.00	0.13
POINT_49	POINT	HORIZONTAL	Construction Point Source 49	631,796.83	3,674,918.55	-69.36	4.60	533.00	18.00	0.13
POINT_50	POINT	HORIZONTAL	Construction Point Source 50	631,796.83	3,674,893.55	-69.36	4.60	533.00	18.00	0.13
POINT_51	POINT	HORIZONTAL	Construction Point Source 51	631,796.83	3,674,868.55	-69.36	4.60	533.00	18.00	0.13
POINT_52	POINT	HORIZONTAL	Construction Point Source 52	631,796.83	3,674,843.55	-69.36	4.60	533.00	18.00	0.13
POINT_53	POINT	HORIZONTAL	Construction Point Source 53	631,796.83	3,674,818.55	-69.36	4.60	533.00	18.00	0.13
POINT_54	POINT	HORIZONTAL	Construction Point Source 54	631,796.83	3,674,793.55	-69.36	4.60	533.00	18.00	0.13
POINT_55	POINT	HORIZONTAL	Construction Point Source 55	631,796.83	3,674,768.55	-69.36	4.60	533.00	18.00	0.13
POINT_56	POINT	HORIZONTAL	Construction Point Source 56	631,796.83	3,674,743.55	-69.36	4.60	533.00	18.00	0.13
POINT_57	POINT	HORIZONTAL	Construction Point Source 57	631,796.83	3,674,718.55	-69.36	4.60	533.00	18.00	0.13
POINT_58	POINT	HORIZONTAL	Construction Point Source 58	631,796.83	3,674,693.55	-69.36	4.60	533.00	18.00	0.13
POINT_59	POINT	HORIZONTAL	Construction Point Source 59	631,796.83	3,674,668.55	-69.36	4.60	533.00	18.00	0.13
POINT_60	POINT	HORIZONTAL	Construction Point Source 60	631,796.83	3,674,643.55	-69.36	4.60	533.00	18.00	0.13
POINT_61	POINT	HORIZONTAL	Construction Point Source 61	631,796.83	3,674,618.55	-69.36	4.60	533.00	18.00	0.13
POINT_62	POINT	HORIZONTAL	Construction Point Source 62	631,796.83	3,674,593.55	-69.36	4.60	533.00	18.00	0.13
POINT_63	POINT	HORIZONTAL	Construction Point Source 63	631,796.83	3,674,568.55	-69.36	4.60	533.00	18.00	0.13
POINT_64	POINT	HORIZONTAL	Construction Point Source 64	631,796.83	3,674,543.55	-69.36	4.60	533.00	18.00	0.13
POINT_65	POINT	HORIZONTAL	Construction Point Source 65	631,821.83	3,674,918.55	-69.36	4.60	533.00	18.00	0.13
POINT_66	POINT	HORIZONTAL	Construction Point Source 66	631,821.83	3,674,893.55	-69.36	4.60	533.00	18.00	0.13
POINT_67	POINT	HORIZONTAL	Construction Point Source 67	631,821.83	3,674,868.55	-69.36	4.60	533.00	18.00	0.13
POINT_68	POINT	HORIZONTAL	Construction Point Source 68	631,821.83	3,674,843.55	-69.36	4.60	533.00	18.00	0.13
POINT_69	POINT	HORIZONTAL	Construction Point Source 69	631,821.83	3,674,818.55	-69.36	4.60	533.00	18.00	0.13
POINT_70	POINT	HORIZONTAL	Construction Point Source 70	631,821.83	3,674,793.55	-69.36	4.60	533.00	18.00	0.13
POINT_71	POINT	HORIZONTAL	Construction Point Source 71	631,821.83	3,674,768.55	-69.36	4.60	533.00	18.00	0.13
POINT_72	POINT	HORIZONTAL	Construction Point Source 72	631,821.83	3,674,743.55	-69.36	4.60	533.00	18.00	0.13
POINT_73	POINT	HORIZONTAL	Construction Point Source 73	631,821.83	3,674,718.55	-69.36	4.60	533.00	18.00	0.13
POINT_74	POINT	HORIZONTAL	Construction Point Source 74	631,821.83	3,674,693.55	-69.36	4.60	533.00	18.00	0.13
POINT_75	POINT	HORIZONTAL	Construction Point Source 75	631,821.83	3,674,668.55	-69.36	4.60	533.00	18.00	0.13
POINT_76	POINT	HORIZONTAL	Construction Point Source 76	631,821.83	3,674,643.55	-69.36	4.60	533.00	18.00	0.13
POINT_77	POINT	HORIZONTAL	Construction Point Source 77	631,821.83	3,674,618.55	-69.36	4.60	533.00	18.00	0.13
POINT_78	POINT	HORIZONTAL	Construction Point Source 78	631,821.83	3,674,593.55	-69.36	4.60	533.00	18.00	0.13
POINT_79	POINT	HORIZONTAL	Construction Point Source 79	631,821.83	3,674,568.55	-69.36	4.60	533.00	18.00	0.13
POINT_80	POINT	HORIZONTAL	Construction Point Source 80	631,821.83	3,674,543.55	-69.36	4.60	533.00	18.00	0.13

BHE Renewables

Morton Bay Construction Air Quality Impacts Analysis

Point Source Parameters

April 2023

Morton Bay Construction Modeled Point Source Parameters

Source ID	Source Type	Stack Release Type	Source Description	Easting (X) (m)	Northing (Y) (m)	Base Elevation (m)	Stack Height (m)	Temperature (K)	Exit Velocity (m/s)	Stack Diameter (m)
POINT_81	POINT	HORIZONTAL	Construction Point Source 81	631,846.83	3,674,918.55	-69.36	4.60	533.00	18.00	0.13
POINT_82	POINT	HORIZONTAL	Construction Point Source 82	631,846.83	3,674,893.55	-69.36	4.60	533.00	18.00	0.13
POINT_83	POINT	HORIZONTAL	Construction Point Source 83	631,846.83	3,674,868.55	-69.36	4.60	533.00	18.00	0.13
POINT_84	POINT	HORIZONTAL	Construction Point Source 84	631,846.83	3,674,843.55	-69.36	4.60	533.00	18.00	0.13
POINT_85	POINT	HORIZONTAL	Construction Point Source 85	631,846.83	3,674,818.55	-69.36	4.60	533.00	18.00	0.13
POINT_86	POINT	HORIZONTAL	Construction Point Source 86	631,846.83	3,674,793.55	-69.36	4.60	533.00	18.00	0.13
POINT_87	POINT	HORIZONTAL	Construction Point Source 87	631,846.83	3,674,768.55	-69.36	4.60	533.00	18.00	0.13
POINT_88	POINT	HORIZONTAL	Construction Point Source 88	631,846.83	3,674,743.55	-69.36	4.60	533.00	18.00	0.13
POINT_89	POINT	HORIZONTAL	Construction Point Source 89	631,846.83	3,674,718.55	-69.36	4.60	533.00	18.00	0.13
POINT_90	POINT	HORIZONTAL	Construction Point Source 90	631,846.83	3,674,693.55	-69.36	4.60	533.00	18.00	0.13
POINT_91	POINT	HORIZONTAL	Construction Point Source 91	631,846.83	3,674,668.55	-69.36	4.60	533.00	18.00	0.13
POINT_92	POINT	HORIZONTAL	Construction Point Source 92	631,846.83	3,674,643.55	-69.36	4.60	533.00	18.00	0.13
POINT_93	POINT	HORIZONTAL	Construction Point Source 93	631,846.83	3,674,618.55	-69.36	4.60	533.00	18.00	0.13
POINT_94	POINT	HORIZONTAL	Construction Point Source 94	631,846.83	3,674,593.55	-69.36	4.60	533.00	18.00	0.13
POINT_95	POINT	HORIZONTAL	Construction Point Source 95	631,846.83	3,674,568.55	-69.36	4.60	533.00	18.00	0.13
POINT_96	POINT	HORIZONTAL	Construction Point Source 96	631,846.83	3,674,543.55	-69.36	4.60	533.00	18.00	0.13
POINT_97	POINT	HORIZONTAL	Construction Point Source 97	631,871.83	3,674,918.55	-69.36	4.60	533.00	18.00	0.13
POINT_98	POINT	HORIZONTAL	Construction Point Source 98	631,871.83	3,674,893.55	-69.36	4.60	533.00	18.00	0.13
POINT_99	POINT	HORIZONTAL	Construction Point Source 99	631,871.83	3,674,868.55	-69.36	4.60	533.00	18.00	0.13
POINT_100	POINT	HORIZONTAL	Construction Point Source 100	631,871.83	3,674,843.55	-69.36	4.60	533.00	18.00	0.13
POINT_101	POINT	HORIZONTAL	Construction Point Source 101	631,871.83	3,674,818.55	-69.36	4.60	533.00	18.00	0.13
POINT_102	POINT	HORIZONTAL	Construction Point Source 102	631,871.83	3,674,793.55	-69.36	4.60	533.00	18.00	0.13
POINT_103	POINT	HORIZONTAL	Construction Point Source 103	631,871.83	3,674,768.55	-69.36	4.60	533.00	18.00	0.13
POINT_104	POINT	HORIZONTAL	Construction Point Source 104	631,871.83	3,674,743.55	-69.36	4.60	533.00	18.00	0.13
POINT_105	POINT	HORIZONTAL	Construction Point Source 105	631,871.83	3,674,718.55	-69.36	4.60	533.00	18.00	0.13
POINT_106	POINT	HORIZONTAL	Construction Point Source 106	631,871.83	3,674,693.55	-69.36	4.60	533.00	18.00	0.13
POINT_107	POINT	HORIZONTAL	Construction Point Source 107	631,871.83	3,674,668.55	-69.36	4.60	533.00	18.00	0.13
POINT_108	POINT	HORIZONTAL	Construction Point Source 108	631,871.83	3,674,643.55	-69.36	4.60	533.00	18.00	0.13
POINT_109	POINT	HORIZONTAL	Construction Point Source 109	631,871.83	3,674,618.55	-69.36	4.60	533.00	18.00	0.13
POINT_110	POINT	HORIZONTAL	Construction Point Source 110	631,871.83	3,674,593.55	-69.36	4.60	533.00	18.00	0.13
POINT_111	POINT	HORIZONTAL	Construction Point Source 111	631,871.83	3,674,568.55	-69.36	4.60	533.00	18.00	0.13
POINT_112	POINT	HORIZONTAL	Construction Point Source 112	631,871.83	3,674,543.55	-69.36	4.60	533.00	18.00	0.13
POINT_113	POINT	HORIZONTAL	Construction Point Source 113	631,896.83	3,674,918.55	-69.36	4.60	533.00	18.00	0.13
POINT_114	POINT	HORIZONTAL	Construction Point Source 114	631,896.83	3,674,893.55	-69.36	4.60	533.00	18.00	0.13
POINT_115	POINT	HORIZONTAL	Construction Point Source 115	631,896.83	3,674,868.55	-69.36	4.60	533.00	18.00	0.13
POINT_116	POINT	HORIZONTAL	Construction Point Source 116	631,896.83	3,674,843.55	-69.36	4.60	533.00	18.00	0.13
POINT_117	POINT	HORIZONTAL	Construction Point Source 117	631,896.83	3,674,818.55	-69.36	4.60	533.00	18.00	0.13
POINT_118	POINT	HORIZONTAL	Construction Point Source 118	631,896.83	3,674,793.55	-69.36	4.60	533.00	18.00	0.13
POINT_119	POINT	HORIZONTAL	Construction Point Source 119	631,896.83	3,674,768.55	-69.36	4.60	533.00	18.00	0.13
POINT_120	POINT	HORIZONTAL	Construction Point Source 120	631,896.83	3,674,743.55	-69.36	4.60	533.00	18.00	0.13

BHE Renewables

Morton Bay Construction Air Quality Impacts Analysis

Point Source Parameters

April 2023

Morton Bay Construction Modeled Point Source Parameters

Source ID	Source Type	Stack Release Type	Source Description	Easting (X) (m)	Northing (Y) (m)	Base Elevation (m)	Stack Height (m)	Temperature (K)	Exit Velocity (m/s)	Stack Diameter (m)
POINT_121	POINT	HORIZONTAL	Construction Point Source 121	631,896.83	3,674,718.55	-69.36	4.60	533.00	18.00	0.13
POINT_122	POINT	HORIZONTAL	Construction Point Source 122	631,896.83	3,674,693.55	-69.36	4.60	533.00	18.00	0.13
POINT_123	POINT	HORIZONTAL	Construction Point Source 123	631,896.83	3,674,668.55	-69.36	4.60	533.00	18.00	0.13
POINT_124	POINT	HORIZONTAL	Construction Point Source 124	631,896.83	3,674,643.55	-69.36	4.60	533.00	18.00	0.13
POINT_125	POINT	HORIZONTAL	Construction Point Source 125	631,896.83	3,674,618.55	-69.36	4.60	533.00	18.00	0.13
POINT_126	POINT	HORIZONTAL	Construction Point Source 126	631,896.83	3,674,593.55	-69.36	4.60	533.00	18.00	0.13
POINT_127	POINT	HORIZONTAL	Construction Point Source 127	631,896.83	3,674,568.55	-69.36	4.60	533.00	18.00	0.13
POINT_128	POINT	HORIZONTAL	Construction Point Source 128	631,896.83	3,674,543.55	-69.36	4.60	533.00	18.00	0.13
POINT_129	POINT	HORIZONTAL	Construction Point Source 129	631,921.83	3,674,918.55	-69.36	4.60	533.00	18.00	0.13
POINT_130	POINT	HORIZONTAL	Construction Point Source 130	631,921.83	3,674,893.55	-69.36	4.60	533.00	18.00	0.13
POINT_131	POINT	HORIZONTAL	Construction Point Source 131	631,921.83	3,674,868.55	-69.36	4.60	533.00	18.00	0.13
POINT_132	POINT	HORIZONTAL	Construction Point Source 132	631,921.83	3,674,843.55	-69.36	4.60	533.00	18.00	0.13
POINT_133	POINT	HORIZONTAL	Construction Point Source 133	631,921.83	3,674,818.55	-69.36	4.60	533.00	18.00	0.13
POINT_134	POINT	HORIZONTAL	Construction Point Source 134	631,921.83	3,674,793.55	-69.36	4.60	533.00	18.00	0.13
POINT_135	POINT	HORIZONTAL	Construction Point Source 135	631,921.83	3,674,768.55	-69.36	4.60	533.00	18.00	0.13
POINT_136	POINT	HORIZONTAL	Construction Point Source 136	631,921.83	3,674,743.55	-69.36	4.60	533.00	18.00	0.13
POINT_137	POINT	HORIZONTAL	Construction Point Source 137	631,921.83	3,674,718.55	-69.36	4.60	533.00	18.00	0.13
POINT_138	POINT	HORIZONTAL	Construction Point Source 138	631,921.83	3,674,693.55	-69.36	4.60	533.00	18.00	0.13
POINT_139	POINT	HORIZONTAL	Construction Point Source 139	631,921.83	3,674,668.55	-69.36	4.60	533.00	18.00	0.13
POINT_140	POINT	HORIZONTAL	Construction Point Source 140	631,921.83	3,674,643.55	-69.36	4.60	533.00	18.00	0.13
POINT_141	POINT	HORIZONTAL	Construction Point Source 141	631,921.83	3,674,618.55	-69.36	4.60	533.00	18.00	0.13
POINT_142	POINT	HORIZONTAL	Construction Point Source 142	631,921.83	3,674,593.55	-69.36	4.60	533.00	18.00	0.13
POINT_143	POINT	HORIZONTAL	Construction Point Source 143	631,921.83	3,674,568.55	-69.36	4.60	533.00	18.00	0.13
POINT_144	POINT	HORIZONTAL	Construction Point Source 144	631,921.83	3,674,543.55	-69.36	4.60	533.00	18.00	0.13
POINT_145	POINT	HORIZONTAL	Construction Point Source 145	631,946.83	3,674,918.55	-69.36	4.60	533.00	18.00	0.13
POINT_146	POINT	HORIZONTAL	Construction Point Source 146	631,946.83	3,674,893.55	-69.36	4.60	533.00	18.00	0.13
POINT_147	POINT	HORIZONTAL	Construction Point Source 147	631,946.83	3,674,868.55	-69.36	4.60	533.00	18.00	0.13
POINT_148	POINT	HORIZONTAL	Construction Point Source 148	631,946.83	3,674,843.55	-69.36	4.60	533.00	18.00	0.13
POINT_149	POINT	HORIZONTAL	Construction Point Source 149	631,946.83	3,674,818.55	-69.36	4.60	533.00	18.00	0.13
POINT_150	POINT	HORIZONTAL	Construction Point Source 150	631,946.83	3,674,793.55	-69.36	4.60	533.00	18.00	0.13
POINT_151	POINT	HORIZONTAL	Construction Point Source 151	631,946.83	3,674,768.55	-69.36	4.60	533.00	18.00	0.13
POINT_152	POINT	HORIZONTAL	Construction Point Source 152	631,946.83	3,674,743.55	-69.36	4.60	533.00	18.00	0.13
POINT_153	POINT	HORIZONTAL	Construction Point Source 153	631,946.83	3,674,718.55	-69.36	4.60	533.00	18.00	0.13
POINT_154	POINT	HORIZONTAL	Construction Point Source 154	631,946.83	3,674,693.55	-69.36	4.60	533.00	18.00	0.13
POINT_155	POINT	HORIZONTAL	Construction Point Source 155	631,946.83	3,674,668.55	-69.36	4.60	533.00	18.00	0.13
POINT_156	POINT	HORIZONTAL	Construction Point Source 156	631,946.83	3,674,643.55	-69.36	4.60	533.00	18.00	0.13
POINT_157	POINT	HORIZONTAL	Construction Point Source 157	631,946.83	3,674,618.55	-69.36	4.60	533.00	18.00	0.13
POINT_158	POINT	HORIZONTAL	Construction Point Source 158	631,946.83	3,674,593.55	-69.36	4.60	533.00	18.00	0.13
POINT_159	POINT	HORIZONTAL	Construction Point Source 159	631,946.83	3,674,568.55	-69.36	4.60	533.00	18.00	0.13
POINT_160	POINT	HORIZONTAL	Construction Point Source 160	631,946.83	3,674,543.55	-69.36	4.60	533.00	18.00	0.13

BHE Renewables

Morton Bay Construction Air Quality Impacts Analysis

Point Source Parameters

April 2023

Morton Bay Construction Modeled Point Source Parameters

Source ID	Source Type	Stack Release Type	Source Description	Easting (X) (m)	Northing (Y) (m)	Base Elevation (m)	Stack Height (m)	Temperature (K)	Exit Velocity (m/s)	Stack Diameter (m)
POINT_161	POINT	HORIZONTAL	Construction Point Source 161	631,971.83	3,674,918.55	-69.36	4.60	533.00	18.00	0.13
POINT_162	POINT	HORIZONTAL	Construction Point Source 162	631,971.83	3,674,893.55	-69.36	4.60	533.00	18.00	0.13
POINT_163	POINT	HORIZONTAL	Construction Point Source 163	631,971.83	3,674,868.55	-69.36	4.60	533.00	18.00	0.13
POINT_164	POINT	HORIZONTAL	Construction Point Source 164	631,971.83	3,674,843.55	-69.36	4.60	533.00	18.00	0.13
POINT_165	POINT	HORIZONTAL	Construction Point Source 165	631,971.83	3,674,818.55	-69.36	4.60	533.00	18.00	0.13
POINT_166	POINT	HORIZONTAL	Construction Point Source 166	631,971.83	3,674,793.55	-69.36	4.60	533.00	18.00	0.13
POINT_167	POINT	HORIZONTAL	Construction Point Source 167	631,971.83	3,674,768.55	-69.36	4.60	533.00	18.00	0.13
POINT_168	POINT	HORIZONTAL	Construction Point Source 168	631,971.83	3,674,743.55	-69.36	4.60	533.00	18.00	0.13
POINT_169	POINT	HORIZONTAL	Construction Point Source 169	631,971.83	3,674,718.55	-69.36	4.60	533.00	18.00	0.13
POINT_170	POINT	HORIZONTAL	Construction Point Source 170	631,971.83	3,674,693.55	-69.36	4.60	533.00	18.00	0.13
POINT_171	POINT	HORIZONTAL	Construction Point Source 171	631,971.83	3,674,668.55	-69.36	4.60	533.00	18.00	0.13
POINT_172	POINT	HORIZONTAL	Construction Point Source 172	631,971.83	3,674,643.55	-69.36	4.60	533.00	18.00	0.13
POINT_173	POINT	HORIZONTAL	Construction Point Source 173	631,971.83	3,674,618.55	-69.36	4.60	533.00	18.00	0.13
POINT_174	POINT	HORIZONTAL	Construction Point Source 174	631,971.83	3,674,593.55	-69.36	4.60	533.00	18.00	0.13
POINT_175	POINT	HORIZONTAL	Construction Point Source 175	631,971.83	3,674,568.55	-69.36	4.60	533.00	18.00	0.13
POINT_176	POINT	HORIZONTAL	Construction Point Source 176	631,971.83	3,674,543.55	-69.36	4.60	533.00	18.00	0.13
POINT_177	POINT	HORIZONTAL	Construction Point Source 177	631,996.83	3,674,918.55	-69.36	4.60	533.00	18.00	0.13
POINT_178	POINT	HORIZONTAL	Construction Point Source 178	631,996.83	3,674,893.55	-69.36	4.60	533.00	18.00	0.13
POINT_179	POINT	HORIZONTAL	Construction Point Source 179	631,996.83	3,674,868.55	-69.36	4.60	533.00	18.00	0.13
POINT_180	POINT	HORIZONTAL	Construction Point Source 180	631,996.83	3,674,843.55	-69.36	4.60	533.00	18.00	0.13
POINT_181	POINT	HORIZONTAL	Construction Point Source 181	631,996.83	3,674,818.55	-69.36	4.60	533.00	18.00	0.13
POINT_182	POINT	HORIZONTAL	Construction Point Source 182	631,996.83	3,674,793.55	-69.36	4.60	533.00	18.00	0.13
POINT_183	POINT	HORIZONTAL	Construction Point Source 183	631,996.83	3,674,768.55	-69.36	4.60	533.00	18.00	0.13
POINT_184	POINT	HORIZONTAL	Construction Point Source 184	631,996.83	3,674,743.55	-69.36	4.60	533.00	18.00	0.13
POINT_185	POINT	HORIZONTAL	Construction Point Source 185	631,996.83	3,674,718.55	-69.36	4.60	533.00	18.00	0.13
POINT_186	POINT	HORIZONTAL	Construction Point Source 186	631,996.83	3,674,693.55	-69.36	4.60	533.00	18.00	0.13
POINT_187	POINT	HORIZONTAL	Construction Point Source 187	631,996.83	3,674,668.55	-69.36	4.60	533.00	18.00	0.13
POINT_188	POINT	HORIZONTAL	Construction Point Source 188	631,996.83	3,674,643.55	-69.36	4.60	533.00	18.00	0.13
POINT_189	POINT	HORIZONTAL	Construction Point Source 189	631,996.83	3,674,618.55	-69.36	4.60	533.00	18.00	0.13
POINT_190	POINT	HORIZONTAL	Construction Point Source 190	631,996.83	3,674,593.55	-69.36	4.60	533.00	18.00	0.13
POINT_191	POINT	HORIZONTAL	Construction Point Source 191	631,996.83	3,674,568.55	-69.36	4.60	533.00	18.00	0.13
POINT_192	POINT	HORIZONTAL	Construction Point Source 192	631,996.83	3,674,543.55	-69.36	4.60	533.00	18.00	0.13
POINT_193	POINT	HORIZONTAL	Construction Point Source 193	632,021.83	3,674,918.55	-69.36	4.60	533.00	18.00	0.13
POINT_194	POINT	HORIZONTAL	Construction Point Source 194	632,021.83	3,674,893.55	-69.36	4.60	533.00	18.00	0.13
POINT_195	POINT	HORIZONTAL	Construction Point Source 195	632,021.83	3,674,868.55	-69.36	4.60	533.00	18.00	0.13
POINT_196	POINT	HORIZONTAL	Construction Point Source 196	632,021.83	3,674,843.55	-69.36	4.60	533.00	18.00	0.13
POINT_197	POINT	HORIZONTAL	Construction Point Source 197	632,021.83	3,674,818.55	-69.36	4.60	533.00	18.00	0.13
POINT_198	POINT	HORIZONTAL	Construction Point Source 198	632,021.83	3,674,793.55	-69.36	4.60	533.00	18.00	0.13
POINT_199	POINT	HORIZONTAL	Construction Point Source 199	632,021.83	3,674,768.55	-69.36	4.60	533.00	18.00	0.13
POINT_200	POINT	HORIZONTAL	Construction Point Source 200	632,021.83	3,674,743.55	-69.36	4.60	533.00	18.00	0.13

BHE Renewables

Morton Bay Construction Air Quality Impacts Analysis

Point Source Parameters

April 2023

Morton Bay Construction Modeled Point Source Parameters

Source ID	Source Type	Stack Release Type	Source Description	Easting (X) (m)	Northing (Y) (m)	Base Elevation (m)	Stack Height (m)	Temperature (K)	Exit Velocity (m/s)	Stack Diameter (m)
POINT_201	POINT	HORIZONTAL	Construction Point Source 201	632,021.83	3,674,718.55	-69.36	4.60	533.00	18.00	0.13
POINT_202	POINT	HORIZONTAL	Construction Point Source 202	632,021.83	3,674,693.55	-69.36	4.60	533.00	18.00	0.13
POINT_203	POINT	HORIZONTAL	Construction Point Source 203	632,021.83	3,674,668.55	-69.36	4.60	533.00	18.00	0.13
POINT_204	POINT	HORIZONTAL	Construction Point Source 204	632,021.83	3,674,643.55	-69.36	4.60	533.00	18.00	0.13
POINT_205	POINT	HORIZONTAL	Construction Point Source 205	632,021.83	3,674,618.55	-69.36	4.60	533.00	18.00	0.13
POINT_206	POINT	HORIZONTAL	Construction Point Source 206	632,021.83	3,674,593.55	-69.36	4.60	533.00	18.00	0.13
POINT_207	POINT	HORIZONTAL	Construction Point Source 207	632,021.83	3,674,568.55	-69.36	4.60	533.00	18.00	0.13
POINT_208	POINT	HORIZONTAL	Construction Point Source 208	632,021.83	3,674,543.55	-69.36	4.60	533.00	18.00	0.13
POINT_209	POINT	HORIZONTAL	Construction Point Source 209	632,046.83	3,674,918.55	-69.36	4.60	533.00	18.00	0.13
POINT_210	POINT	HORIZONTAL	Construction Point Source 210	632,046.83	3,674,893.55	-69.36	4.60	533.00	18.00	0.13
POINT_211	POINT	HORIZONTAL	Construction Point Source 211	632,046.83	3,674,868.55	-69.36	4.60	533.00	18.00	0.13
POINT_212	POINT	HORIZONTAL	Construction Point Source 212	632,046.83	3,674,843.55	-69.36	4.60	533.00	18.00	0.13
POINT_213	POINT	HORIZONTAL	Construction Point Source 213	632,046.83	3,674,818.55	-69.36	4.60	533.00	18.00	0.13
POINT_214	POINT	HORIZONTAL	Construction Point Source 214	632,046.83	3,674,793.55	-69.36	4.60	533.00	18.00	0.13
POINT_215	POINT	HORIZONTAL	Construction Point Source 215	632,046.83	3,674,768.55	-69.36	4.60	533.00	18.00	0.13
POINT_216	POINT	HORIZONTAL	Construction Point Source 216	632,046.83	3,674,743.55	-69.36	4.60	533.00	18.00	0.13
POINT_217	POINT	HORIZONTAL	Construction Point Source 217	632,046.83	3,674,718.55	-69.36	4.60	533.00	18.00	0.13
POINT_218	POINT	HORIZONTAL	Construction Point Source 218	632,046.83	3,674,693.55	-69.36	4.60	533.00	18.00	0.13
POINT_219	POINT	HORIZONTAL	Construction Point Source 219	632,046.83	3,674,668.55	-69.36	4.60	533.00	18.00	0.13
POINT_220	POINT	HORIZONTAL	Construction Point Source 220	632,046.83	3,674,643.55	-69.36	4.60	533.00	18.00	0.13
POINT_221	POINT	HORIZONTAL	Construction Point Source 221	632,046.83	3,674,618.55	-69.36	4.60	533.00	18.00	0.13
POINT_222	POINT	HORIZONTAL	Construction Point Source 222	632,046.83	3,674,593.55	-69.36	4.60	533.00	18.00	0.13
POINT_223	POINT	HORIZONTAL	Construction Point Source 223	632,046.83	3,674,568.55	-69.36	4.60	533.00	18.00	0.13
POINT_224	POINT	HORIZONTAL	Construction Point Source 224	632,046.83	3,674,543.55	-69.36	4.60	533.00	18.00	0.13
POINT_225	POINT	HORIZONTAL	Construction Point Source 225	632,071.83	3,674,918.55	-69.36	4.60	533.00	18.00	0.13
POINT_226	POINT	HORIZONTAL	Construction Point Source 226	632,071.83	3,674,893.55	-69.36	4.60	533.00	18.00	0.13
POINT_227	POINT	HORIZONTAL	Construction Point Source 227	632,071.83	3,674,868.55	-69.36	4.60	533.00	18.00	0.13
POINT_228	POINT	HORIZONTAL	Construction Point Source 228	632,071.83	3,674,843.55	-69.36	4.60	533.00	18.00	0.13
POINT_229	POINT	HORIZONTAL	Construction Point Source 229	632,071.83	3,674,818.55	-69.36	4.60	533.00	18.00	0.13
POINT_230	POINT	HORIZONTAL	Construction Point Source 230	632,071.83	3,674,793.55	-69.36	4.60	533.00	18.00	0.13
POINT_231	POINT	HORIZONTAL	Construction Point Source 231	632,071.83	3,674,768.55	-69.36	4.60	533.00	18.00	0.13
POINT_232	POINT	HORIZONTAL	Construction Point Source 232	632,071.83	3,674,743.55	-69.36	4.60	533.00	18.00	0.13
POINT_233	POINT	HORIZONTAL	Construction Point Source 233	632,071.83	3,674,718.55	-69.36	4.60	533.00	18.00	0.13
POINT_234	POINT	HORIZONTAL	Construction Point Source 234	632,071.83	3,674,693.55	-69.36	4.60	533.00	18.00	0.13
POINT_235	POINT	HORIZONTAL	Construction Point Source 235	632,071.83	3,674,668.55	-69.36	4.60	533.00	18.00	0.13
POINT_236	POINT	HORIZONTAL	Construction Point Source 236	632,071.83	3,674,643.55	-69.36	4.60	533.00	18.00	0.13
POINT_237	POINT	HORIZONTAL	Construction Point Source 237	632,071.83	3,674,618.55	-69.36	4.60	533.00	18.00	0.13
POINT_238	POINT	HORIZONTAL	Construction Point Source 238	632,071.83	3,674,593.55	-69.36	4.60	533.00	18.00	0.13
POINT_239	POINT	HORIZONTAL	Construction Point Source 239	632,071.83	3,674,568.55	-69.36	4.60	533.00	18.00	0.13
POINT_240	POINT	HORIZONTAL	Construction Point Source 240	632,071.83	3,674,543.55	-69.36	4.60	533.00	18.00	0.13

BHE Renewables

Morton Bay Construction Air Quality Impacts Analysis

Point Source Parameters

April 2023

Morton Bay Construction Modeled Point Source Parameters

Source ID	Source Type	Stack Release Type	Source Description	Easting (X) (m)	Northing (Y) (m)	Base Elevation (m)	Stack Height (m)	Temperature (K)	Exit Velocity (m/s)	Stack Diameter (m)
POINT_241	POINT	HORIZONTAL	Construction Point Source 241	632,096.83	3,674,918.55	-69.36	4.60	533.00	18.00	0.13
POINT_242	POINT	HORIZONTAL	Construction Point Source 242	632,096.83	3,674,893.55	-69.36	4.60	533.00	18.00	0.13
POINT_243	POINT	HORIZONTAL	Construction Point Source 243	632,096.83	3,674,868.55	-69.36	4.60	533.00	18.00	0.13
POINT_244	POINT	HORIZONTAL	Construction Point Source 244	632,096.83	3,674,843.55	-69.36	4.60	533.00	18.00	0.13
POINT_245	POINT	HORIZONTAL	Construction Point Source 245	632,096.83	3,674,818.55	-69.36	4.60	533.00	18.00	0.13
POINT_246	POINT	HORIZONTAL	Construction Point Source 246	632,096.83	3,674,793.55	-69.36	4.60	533.00	18.00	0.13
POINT_247	POINT	HORIZONTAL	Construction Point Source 247	632,096.83	3,674,768.55	-69.36	4.60	533.00	18.00	0.13
POINT_248	POINT	HORIZONTAL	Construction Point Source 248	632,096.83	3,674,743.55	-69.36	4.60	533.00	18.00	0.13
POINT_249	POINT	HORIZONTAL	Construction Point Source 249	632,096.83	3,674,718.55	-69.36	4.60	533.00	18.00	0.13
POINT_250	POINT	HORIZONTAL	Construction Point Source 250	632,096.83	3,674,693.55	-69.36	4.60	533.00	18.00	0.13
POINT_251	POINT	HORIZONTAL	Construction Point Source 251	632,096.83	3,674,668.55	-69.36	4.60	533.00	18.00	0.13
POINT_252	POINT	HORIZONTAL	Construction Point Source 252	632,096.83	3,674,643.55	-69.36	4.60	533.00	18.00	0.13
POINT_253	POINT	HORIZONTAL	Construction Point Source 253	632,096.83	3,674,618.55	-69.36	4.60	533.00	18.00	0.13
POINT_254	POINT	HORIZONTAL	Construction Point Source 254	632,096.83	3,674,593.55	-69.36	4.60	533.00	18.00	0.13
POINT_255	POINT	HORIZONTAL	Construction Point Source 255	632,096.83	3,674,568.55	-69.36	4.60	533.00	18.00	0.13
POINT_256	POINT	HORIZONTAL	Construction Point Source 256	632,096.83	3,674,543.55	-69.36	4.60	533.00	18.00	0.13
POINT_257	POINT	HORIZONTAL	Construction Point Source 257	632,121.83	3,674,918.55	-69.36	4.60	533.00	18.00	0.13
POINT_258	POINT	HORIZONTAL	Construction Point Source 258	632,121.83	3,674,893.55	-69.36	4.60	533.00	18.00	0.13
POINT_259	POINT	HORIZONTAL	Construction Point Source 259	632,121.83	3,674,868.55	-69.36	4.60	533.00	18.00	0.13
POINT_260	POINT	HORIZONTAL	Construction Point Source 260	632,121.83	3,674,843.55	-69.36	4.60	533.00	18.00	0.13
POINT_261	POINT	HORIZONTAL	Construction Point Source 261	632,121.83	3,674,818.55	-69.36	4.60	533.00	18.00	0.13
POINT_262	POINT	HORIZONTAL	Construction Point Source 262	632,121.83	3,674,793.55	-69.36	4.60	533.00	18.00	0.13
POINT_263	POINT	HORIZONTAL	Construction Point Source 263	632,121.83	3,674,768.55	-69.36	4.60	533.00	18.00	0.13
POINT_264	POINT	HORIZONTAL	Construction Point Source 264	632,121.83	3,674,743.55	-69.36	4.60	533.00	18.00	0.13
POINT_265	POINT	HORIZONTAL	Construction Point Source 265	632,121.83	3,674,718.55	-69.36	4.60	533.00	18.00	0.13
POINT_266	POINT	HORIZONTAL	Construction Point Source 266	632,121.83	3,674,693.55	-69.36	4.60	533.00	18.00	0.13
POINT_267	POINT	HORIZONTAL	Construction Point Source 267	632,121.83	3,674,668.55	-69.36	4.60	533.00	18.00	0.13
POINT_268	POINT	HORIZONTAL	Construction Point Source 268	632,121.83	3,674,643.55	-69.36	4.60	533.00	18.00	0.13
POINT_269	POINT	HORIZONTAL	Construction Point Source 269	632,121.83	3,674,618.55	-69.36	4.60	533.00	18.00	0.13
POINT_270	POINT	HORIZONTAL	Construction Point Source 270	632,121.83	3,674,593.55	-69.36	4.60	533.00	18.00	0.13
POINT_271	POINT	HORIZONTAL	Construction Point Source 271	632,121.83	3,674,568.55	-69.36	4.60	533.00	18.00	0.13
POINT_272	POINT	HORIZONTAL	Construction Point Source 272	632,121.83	3,674,543.55	-69.36	4.60	533.00	18.00	0.13
POINT_273	POINT	HORIZONTAL	Construction Point Source 273	632,146.83	3,674,918.55	-69.36	4.60	533.00	18.00	0.13
POINT_274	POINT	HORIZONTAL	Construction Point Source 274	632,146.83	3,674,893.55	-69.36	4.60	533.00	18.00	0.13
POINT_275	POINT	HORIZONTAL	Construction Point Source 275	632,146.83	3,674,868.55	-69.36	4.60	533.00	18.00	0.13
POINT_276	POINT	HORIZONTAL	Construction Point Source 276	632,146.83	3,674,843.55	-69.36	4.60	533.00	18.00	0.13
POINT_277	POINT	HORIZONTAL	Construction Point Source 277	632,146.83	3,674,818.55	-69.36	4.60	533.00	18.00	0.13
POINT_278	POINT	HORIZONTAL	Construction Point Source 278	632,146.83	3,674,793.55	-69.36	4.60	533.00	18.00	0.13
POINT_279	POINT	HORIZONTAL	Construction Point Source 279	632,146.83	3,674,768.55	-69.36	4.60	533.00	18.00	0.13
POINT_280	POINT	HORIZONTAL	Construction Point Source 280	632,146.83	3,674,743.55	-69.36	4.60	533.00	18.00	0.13

BHE Renewables

Morton Bay Construction Air Quality Impacts Analysis

Point Source Parameters

April 2023

Morton Bay Construction Modeled Point Source Parameters

Source ID	Source Type	Stack Release Type	Source Description	Easting (X) (m)	Northing (Y) (m)	Base Elevation (m)	Stack Height (m)	Temperature (K)	Exit Velocity (m/s)	Stack Diameter (m)
POINT_281	POINT	HORIZONTAL	Construction Point Source 281	632,146.83	3,674,718.55	-69.36	4.60	533.00	18.00	0.13
POINT_282	POINT	HORIZONTAL	Construction Point Source 282	632,146.83	3,674,693.55	-69.36	4.60	533.00	18.00	0.13
POINT_283	POINT	HORIZONTAL	Construction Point Source 283	632,146.83	3,674,668.55	-69.36	4.60	533.00	18.00	0.13
POINT_284	POINT	HORIZONTAL	Construction Point Source 284	632,146.83	3,674,643.55	-69.36	4.60	533.00	18.00	0.13
POINT_285	POINT	HORIZONTAL	Construction Point Source 285	632,146.83	3,674,618.55	-69.36	4.60	533.00	18.00	0.13
POINT_286	POINT	HORIZONTAL	Construction Point Source 286	632,146.83	3,674,593.55	-69.36	4.60	533.00	18.00	0.13
POINT_287	POINT	HORIZONTAL	Construction Point Source 287	632,146.83	3,674,568.55	-69.36	4.60	533.00	18.00	0.13
POINT_288	POINT	HORIZONTAL	Construction Point Source 288	632,146.83	3,674,543.55	-69.36	4.60	533.00	18.00	0.13
POINT_289	POINT	HORIZONTAL	Construction Point Source 289	632,171.83	3,674,918.55	-69.36	4.60	533.00	18.00	0.13
POINT_290	POINT	HORIZONTAL	Construction Point Source 290	632,171.83	3,674,893.55	-69.36	4.60	533.00	18.00	0.13
POINT_291	POINT	HORIZONTAL	Construction Point Source 291	632,171.83	3,674,868.55	-69.36	4.60	533.00	18.00	0.13
POINT_292	POINT	HORIZONTAL	Construction Point Source 292	632,171.83	3,674,843.55	-69.36	4.60	533.00	18.00	0.13
POINT_293	POINT	HORIZONTAL	Construction Point Source 293	632,171.83	3,674,818.55	-69.36	4.60	533.00	18.00	0.13
POINT_294	POINT	HORIZONTAL	Construction Point Source 294	632,171.83	3,674,793.55	-69.36	4.60	533.00	18.00	0.13
POINT_295	POINT	HORIZONTAL	Construction Point Source 295	632,171.83	3,674,768.55	-69.36	4.60	533.00	18.00	0.13
POINT_296	POINT	HORIZONTAL	Construction Point Source 296	632,171.83	3,674,743.55	-69.36	4.60	533.00	18.00	0.13
POINT_297	POINT	HORIZONTAL	Construction Point Source 297	632,171.83	3,674,718.55	-69.36	4.60	533.00	18.00	0.13
POINT_298	POINT	HORIZONTAL	Construction Point Source 298	632,171.83	3,674,693.55	-69.36	4.60	533.00	18.00	0.13
POINT_299	POINT	HORIZONTAL	Construction Point Source 299	632,171.83	3,674,668.55	-69.36	4.60	533.00	18.00	0.13
POINT_300	POINT	HORIZONTAL	Construction Point Source 300	632,171.83	3,674,643.55	-69.36	4.60	533.00	18.00	0.13
POINT_301	POINT	HORIZONTAL	Construction Point Source 301	632,171.83	3,674,618.55	-69.36	4.60	533.00	18.00	0.13
POINT_302	POINT	HORIZONTAL	Construction Point Source 302	632,171.83	3,674,593.55	-69.36	4.60	533.00	18.00	0.13
POINT_303	POINT	HORIZONTAL	Construction Point Source 303	632,171.83	3,674,568.55	-69.36	4.60	533.00	18.00	0.13
POINT_304	POINT	HORIZONTAL	Construction Point Source 304	632,196.83	3,674,918.55	-69.36	4.60	533.00	18.00	0.13
POINT_305	POINT	HORIZONTAL	Construction Point Source 305	632,196.83	3,674,893.55	-69.36	4.60	533.00	18.00	0.13
POINT_306	POINT	HORIZONTAL	Construction Point Source 306	632,196.83	3,674,868.55	-69.36	4.60	533.00	18.00	0.13
POINT_307	POINT	HORIZONTAL	Construction Point Source 307	632,196.83	3,674,843.55	-69.36	4.60	533.00	18.00	0.13
POINT_308	POINT	HORIZONTAL	Construction Point Source 308	632,196.83	3,674,818.55	-69.36	4.60	533.00	18.00	0.13
POINT_309	POINT	HORIZONTAL	Construction Point Source 309	632,196.83	3,674,793.55	-69.36	4.60	533.00	18.00	0.13
POINT_310	POINT	HORIZONTAL	Construction Point Source 310	632,196.83	3,674,768.55	-69.36	4.60	533.00	18.00	0.13
POINT_311	POINT	HORIZONTAL	Construction Point Source 311	632,196.83	3,674,743.55	-69.36	4.60	533.00	18.00	0.13
POINT_312	POINT	HORIZONTAL	Construction Point Source 312	632,196.83	3,674,718.55	-69.36	4.60	533.00	18.00	0.13
POINT_313	POINT	HORIZONTAL	Construction Point Source 313	632,196.83	3,674,693.55	-69.36	4.60	533.00	18.00	0.13
POINT_314	POINT	HORIZONTAL	Construction Point Source 314	632,196.83	3,674,668.55	-69.36	4.60	533.00	18.00	0.13
POINT_315	POINT	HORIZONTAL	Construction Point Source 315	632,196.83	3,674,643.55	-69.36	4.60	533.00	18.00	0.13
POINT_316	POINT	HORIZONTAL	Construction Point Source 316	632,196.83	3,674,618.55	-69.36	4.60	533.00	18.00	0.13
POINT_317	POINT	HORIZONTAL	Construction Point Source 317	632,196.83	3,674,593.55	-69.36	4.60	533.00	18.00	0.13
POINT_318	POINT	HORIZONTAL	Construction Point Source 318	632,196.83	3,674,568.55	-69.36	4.60	533.00	18.00	0.13
POINT_319	POINT	HORIZONTAL	Construction Point Source 319	632,221.83	3,674,918.55	-69.36	4.60	533.00	18.00	0.13
POINT_320	POINT	HORIZONTAL	Construction Point Source 320	632,221.83	3,674,893.55	-69.36	4.60	533.00	18.00	0.13

BHE Renewables

Morton Bay Construction Air Quality Impacts Analysis

Point Source Parameters

April 2023

Morton Bay Construction Modeled Point Source Parameters

Source ID	Source Type	Stack Release Type	Source Description	Easting (X) (m)	Northing (Y) (m)	Base Elevation (m)	Stack Height (m)	Temperature (K)	Exit Velocity (m/s)	Stack Diameter (m)
POINT_321	POINT	HORIZONTAL	Construction Point Source 321	632,221.83	3,674,868.55	-69.36	4.60	533.00	18.00	0.13
POINT_322	POINT	HORIZONTAL	Construction Point Source 322	632,221.83	3,674,843.55	-69.36	4.60	533.00	18.00	0.13
POINT_323	POINT	HORIZONTAL	Construction Point Source 323	632,221.83	3,674,818.55	-69.36	4.60	533.00	18.00	0.13
POINT_324	POINT	HORIZONTAL	Construction Point Source 324	632,221.83	3,674,793.55	-69.36	4.60	533.00	18.00	0.13
POINT_325	POINT	HORIZONTAL	Construction Point Source 325	632,221.83	3,674,768.55	-69.36	4.60	533.00	18.00	0.13
POINT_326	POINT	HORIZONTAL	Construction Point Source 326	632,221.83	3,674,743.55	-69.36	4.60	533.00	18.00	0.13
POINT_327	POINT	HORIZONTAL	Construction Point Source 327	632,221.83	3,674,718.55	-69.36	4.60	533.00	18.00	0.13
POINT_328	POINT	HORIZONTAL	Construction Point Source 328	632,221.83	3,674,693.55	-69.36	4.60	533.00	18.00	0.13
POINT_329	POINT	HORIZONTAL	Construction Point Source 329	632,221.83	3,674,668.55	-69.36	4.60	533.00	18.00	0.13
POINT_330	POINT	HORIZONTAL	Construction Point Source 330	632,221.83	3,674,643.55	-69.36	4.60	533.00	18.00	0.13
POINT_331	POINT	HORIZONTAL	Construction Point Source 331	632,221.83	3,674,618.55	-69.36	4.60	533.00	18.00	0.13
POINT_332	POINT	HORIZONTAL	Construction Point Source 332	632,221.83	3,674,593.55	-69.36	4.60	533.00	18.00	0.13
POINT_333	POINT	HORIZONTAL	Construction Point Source 333	632,221.83	3,674,568.55	-69.36	4.60	533.00	18.00	0.13
POINT_334	POINT	HORIZONTAL	Construction Point Source 334	632,246.83	3,674,918.55	-69.36	4.60	533.00	18.00	0.13
POINT_335	POINT	HORIZONTAL	Construction Point Source 335	632,246.83	3,674,893.55	-69.36	4.60	533.00	18.00	0.13
POINT_336	POINT	HORIZONTAL	Construction Point Source 336	632,246.83	3,674,868.55	-69.36	4.60	533.00	18.00	0.13
POINT_337	POINT	HORIZONTAL	Construction Point Source 337	632,246.83	3,674,843.55	-69.36	4.60	533.00	18.00	0.13
POINT_338	POINT	HORIZONTAL	Construction Point Source 338	632,246.83	3,674,818.55	-69.36	4.60	533.00	18.00	0.13
POINT_339	POINT	HORIZONTAL	Construction Point Source 339	632,246.83	3,674,793.55	-69.36	4.60	533.00	18.00	0.13
POINT_340	POINT	HORIZONTAL	Construction Point Source 340	632,246.83	3,674,768.55	-69.36	4.60	533.00	18.00	0.13
POINT_341	POINT	HORIZONTAL	Construction Point Source 341	632,246.83	3,674,743.55	-69.36	4.60	533.00	18.00	0.13
POINT_342	POINT	HORIZONTAL	Construction Point Source 342	632,246.83	3,674,718.55	-69.36	4.60	533.00	18.00	0.13
POINT_343	POINT	HORIZONTAL	Construction Point Source 343	632,246.83	3,674,693.55	-69.36	4.60	533.00	18.00	0.13
POINT_344	POINT	HORIZONTAL	Construction Point Source 344	632,246.83	3,674,668.55	-69.36	4.60	533.00	18.00	0.13
POINT_345	POINT	HORIZONTAL	Construction Point Source 345	632,246.83	3,674,643.55	-69.36	4.60	533.00	18.00	0.13
POINT_346	POINT	HORIZONTAL	Construction Point Source 346	632,246.83	3,674,618.55	-69.36	4.60	533.00	18.00	0.13
POINT_347	POINT	HORIZONTAL	Construction Point Source 347	632,246.83	3,674,593.55	-69.36	4.60	533.00	18.00	0.13
POINT_348	POINT	HORIZONTAL	Construction Point Source 348	632,246.83	3,674,568.55	-69.36	4.60	533.00	18.00	0.13
POINT_349	POINT	HORIZONTAL	Construction Point Source 349	632,271.83	3,674,918.55	-69.36	4.60	533.00	18.00	0.13
POINT_350	POINT	HORIZONTAL	Construction Point Source 350	632,271.83	3,674,893.55	-69.36	4.60	533.00	18.00	0.13
POINT_351	POINT	HORIZONTAL	Construction Point Source 351	632,271.83	3,674,868.55	-69.36	4.60	533.00	18.00	0.13
POINT_352	POINT	HORIZONTAL	Construction Point Source 352	632,271.83	3,674,843.55	-69.36	4.60	533.00	18.00	0.13
POINT_353	POINT	HORIZONTAL	Construction Point Source 353	632,271.83	3,674,818.55	-69.36	4.60	533.00	18.00	0.13
POINT_354	POINT	HORIZONTAL	Construction Point Source 354	632,271.83	3,674,793.55	-69.36	4.60	533.00	18.00	0.13
POINT_355	POINT	HORIZONTAL	Construction Point Source 355	632,271.83	3,674,768.55	-69.36	4.60	533.00	18.00	0.13
POINT_356	POINT	HORIZONTAL	Construction Point Source 356	632,271.83	3,674,743.55	-69.36	4.60	533.00	18.00	0.13
POINT_357	POINT	HORIZONTAL	Construction Point Source 357	632,271.83	3,674,718.55	-69.36	4.60	533.00	18.00	0.13
POINT_358	POINT	HORIZONTAL	Construction Point Source 358	632,271.83	3,674,693.55	-69.36	4.60	533.00	18.00	0.13
POINT_359	POINT	HORIZONTAL	Construction Point Source 359	632,271.83	3,674,668.55	-69.36	4.60	533.00	18.00	0.13
POINT_360	POINT	HORIZONTAL	Construction Point Source 360	632,271.83	3,674,643.55	-69.36	4.60	533.00	18.00	0.13

BHE Renewables

Morton Bay Construction Air Quality Impacts Analysis

Point Source Parameters

April 2023

Morton Bay Construction Modeled Point Source Parameters

Source ID	Source Type	Stack Release Type	Source Description	Easting (X) (m)	Northing (Y) (m)	Base Elevation (m)	Stack Height (m)	Temperature (K)	Exit Velocity (m/s)	Stack Diameter (m)
POINT_361	POINT	HORIZONTAL	Construction Point Source 361	632,271.83	3,674,618.55	-69.36	4.60	533.00	18.00	0.13
POINT_362	POINT	HORIZONTAL	Construction Point Source 362	632,271.83	3,674,593.55	-69.36	4.60	533.00	18.00	0.13
POINT_363	POINT	HORIZONTAL	Construction Point Source 363	632,271.83	3,674,568.55	-69.36	4.60	533.00	18.00	0.13
POINT_364	POINT	HORIZONTAL	Construction Point Source 364	632,296.83	3,674,918.55	-69.36	4.60	533.00	18.00	0.13
POINT_365	POINT	HORIZONTAL	Construction Point Source 365	632,296.83	3,674,893.55	-69.36	4.60	533.00	18.00	0.13
POINT_366	POINT	HORIZONTAL	Construction Point Source 366	632,296.83	3,674,868.55	-69.36	4.60	533.00	18.00	0.13
POINT_367	POINT	HORIZONTAL	Construction Point Source 367	632,296.83	3,674,843.55	-69.36	4.60	533.00	18.00	0.13
POINT_368	POINT	HORIZONTAL	Construction Point Source 368	632,296.83	3,674,818.55	-69.36	4.60	533.00	18.00	0.13
POINT_369	POINT	HORIZONTAL	Construction Point Source 369	632,296.83	3,674,793.55	-69.36	4.60	533.00	18.00	0.13
POINT_370	POINT	HORIZONTAL	Construction Point Source 370	632,296.83	3,674,768.55	-69.36	4.60	533.00	18.00	0.13
POINT_371	POINT	HORIZONTAL	Construction Point Source 371	632,296.83	3,674,743.55	-69.36	4.60	533.00	18.00	0.13
POINT_372	POINT	HORIZONTAL	Construction Point Source 372	632,296.83	3,674,718.55	-69.36	4.60	533.00	18.00	0.13
POINT_373	POINT	HORIZONTAL	Construction Point Source 373	632,296.83	3,674,693.55	-69.36	4.60	533.00	18.00	0.13
POINT_374	POINT	HORIZONTAL	Construction Point Source 374	632,296.83	3,674,668.55	-69.36	4.60	533.00	18.00	0.13
POINT_375	POINT	HORIZONTAL	Construction Point Source 375	632,296.83	3,674,643.55	-69.36	4.60	533.00	18.00	0.13
POINT_376	POINT	HORIZONTAL	Construction Point Source 376	632,296.83	3,674,618.55	-69.36	4.60	533.00	18.00	0.13
POINT_377	POINT	HORIZONTAL	Construction Point Source 377	632,296.83	3,674,593.55	-69.36	4.60	533.00	18.00	0.13
POINT_378	POINT	HORIZONTAL	Construction Point Source 378	632,296.83	3,674,568.55	-69.36	4.60	533.00	18.00	0.13
POINT_379	POINT	HORIZONTAL	Construction Point Source 379	632,321.83	3,674,918.55	-69.36	4.60	533.00	18.00	0.13
POINT_380	POINT	HORIZONTAL	Construction Point Source 380	632,321.83	3,674,893.55	-69.36	4.60	533.00	18.00	0.13
POINT_381	POINT	HORIZONTAL	Construction Point Source 381	632,321.83	3,674,868.55	-69.36	4.60	533.00	18.00	0.13
POINT_382	POINT	HORIZONTAL	Construction Point Source 382	632,321.83	3,674,843.55	-69.36	4.60	533.00	18.00	0.13
POINT_383	POINT	HORIZONTAL	Construction Point Source 383	632,321.83	3,674,818.55	-69.36	4.60	533.00	18.00	0.13
POINT_384	POINT	HORIZONTAL	Construction Point Source 384	632,321.83	3,674,793.55	-69.36	4.60	533.00	18.00	0.13
POINT_385	POINT	HORIZONTAL	Construction Point Source 385	632,321.83	3,674,768.55	-69.36	4.60	533.00	18.00	0.13
POINT_386	POINT	HORIZONTAL	Construction Point Source 386	632,321.83	3,674,743.55	-69.36	4.60	533.00	18.00	0.13
POINT_387	POINT	HORIZONTAL	Construction Point Source 387	632,321.83	3,674,718.55	-69.36	4.60	533.00	18.00	0.13
POINT_388	POINT	HORIZONTAL	Construction Point Source 388	632,321.83	3,674,693.55	-69.36	4.60	533.00	18.00	0.13
POINT_389	POINT	HORIZONTAL	Construction Point Source 389	632,321.83	3,674,668.55	-69.36	4.60	533.00	18.00	0.13
POINT_390	POINT	HORIZONTAL	Construction Point Source 390	632,321.83	3,674,643.55	-69.36	4.60	533.00	18.00	0.13
POINT_391	POINT	HORIZONTAL	Construction Point Source 391	632,321.83	3,674,618.55	-69.36	4.60	533.00	18.00	0.13
POINT_392	POINT	HORIZONTAL	Construction Point Source 392	632,321.83	3,674,593.55	-69.36	4.60	533.00	18.00	0.13
POINT_393	POINT	HORIZONTAL	Construction Point Source 393	632,321.83	3,674,568.55	-69.36	4.60	533.00	18.00	0.13

Note: Coordinates presented are UTM NAD83 Zone 11

m = meter(s)

K = Kelvin

m/s = meter(s) per second

BHE Renewables

Elmore North Construction Air Quality Impacts Analysis

Area Source Parameters

April 2023

Elmore North Construction Modeled Area Source Parameters

Source ID	Source Description	Base Elevation (m)	Release Height (m)	Number of Vertices	Initial Vert. Dimension (m)	Easting (X1) (m)	Northing (Y1) (m)	Easting (X2) (m)	Northing (Y2) (m)	Easting (X3) (m)	Northing (Y3) (m)	Easting (X4) (m)	Northing (Y4) (m)
AREA_1	Construction Fugitive Dust Source	-69.0	0.00	4	0.00	631,743.90	3,674,946.48	632,323.38	3,674,953.99	632,331.05	3,674,547.71	631,751.91	3,674,538.26

Note: Coordinates presented are UTM NAD83 Zone 11

m = meter(s)

BHE Renewables

Morton Bay Construction Air Quality Impacts Analysis

Source Emission Rates

April 2023

Morton Bay Construction Modeled Source Emission Rates Per Source

Source ID	Source Type	Release Type	Source Description	CO (g/s)	NO2 (g/s)	NO2A (g/s)	SO2 (g/s)	SO2A (g/s)	PM10 (g/s)	PM10A (g/s)	PM25 (g/s)	PM25A (g/s)
Point_1-Point_393	POINT	DEFAULT	Construction Point Sources	4.33E-03	2.03E-03	1.84E-03	1.02E-05	1.80E-05	4.76E-05	2.03E-05	4.45E-05	1.93E-05
AREA_1	AREAPOLY	DEFAULT	Construction Fugitive Dust Source	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.05E-02	1.72E-02	3.44E-03	1.81E-03

Notes:

Emission rates developed based upon emissions presented in Section 5.1 and Appendix 5.1D, Construction Emissions Inventory.

Descriptions of pollutant IDs and their associated averaging periods are as follows:

CO emission rates correspond to the 1-hour and 8-hour CO averaging period.
NO2 emission rates correspond to the 1-hour NO_2 averaging period.
NO2A emission rates correspond to the Annual NO_2 averaging period.
PM25 emission rates correspond to the 24-hour $PM_{2.5}$ averaging period.
PM25A emission rates correspond to the Annual $PM_{2.5}$ averaging period.
PM10 emission rates correspond to the 24-hour PM_{10} averaging period.
PM10A emission rates correspond to the Annual PM_{10} averaging period.
SO2 emission rates correspond to the 1-hour, 3-hour, and 24-hour SO_2 averaging period.
SO2A emission rates correspond to the Annual SO_2 averaging period.

g/s = gram(s) per second

Appendix 5.1E
Basis of BACT Determination

March 9, 2017

Mr. Jesus Ramirez
Mr. Thomas Brinkerhoff
Imperial County Air Pollution Control District
150 South Ninth Street
El Centro, California 92243
(Via Email & Mail)

Subject: Elmore Back-Pressure Turbine Installation, April 2017
Update to Air Permit Application

Dear Mr. Ramirez and Mr. Binkerhoff,

Enclosed please find an update to the air permit application for the installation of a new turbine at the Elmore facility. CalEnergy submitted the original application on January 3, 2017, and is supplementing the original application information with an analysis of the Best Available Control Technologies (a BACT analysis) for minimizing air emissions from the facility.

The submittal of this information is meant to provide all of the information required for the issuance of an authority- to-construct. Upon approval of the air abatement technologies recommended in the BACT analysis, by the Imperial County Air Pollution Control District, the final equipment design will proceed. It is CalEnergy's intention to submit final design/sizing of the equipment to the air district prior to the issuance of the permit-to-operate for the new turbine and air abatement equipment.

Please do not hesitate to me at 760-348-4275, or via e-mail at Anetha.lue@calenergy.com, with any questions regarding this submittal; and thank you in advance for your review of this application.

Sincerely,

D. Anetha Lue
Digitally signed by D. Anetha Lue
DN: cn=D. Anetha Lue, o, ou=CalEnergy, email=anetha.lue@calenergy.com, c=US
Date: 2017.03.09 18:02:47 -08'00'

Anetha Lue
Director IPP Environmental Services

Attachment

CALENERGY
OPERATING CORPORATION
7030 Gentry Road, Calipatria, California 92233
Phone: 760-348-4200 Fax: 760-348-2714

Cc: Lenie Sarion
Randy Keller
Ed Arceo
Jenny Wu
Jie Meng
Henry Veizades - Veizades & Associates, Inc.
Jill Haizlip - Geologica Geothermal Group Inc