



CO<sub>2</sub> Emissions from Scope 1 & 2 Sources at SEA Airport: 2005, 2010 - 2024

			2005*	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Scope 1	Stationary Source	Natural Gas Boilers	14,102	15,065	14,758	15,107	15,650	15,630	14,193	14,521	15,631	15,431	14,633	13,036	7,811	8,865	8,679	7,718
		Diesel in Back-up Generators	UNKNOWN	167	108	162	244	160	151	104	66	709	369	290	420	448	520	631
	Mobile Source	Gasoline Use in Fleet	1,267	1,030	1,069	1,090	1,013	1,069	1,084	1,051	1,063	1,182	1,187	1,035	1,117	1,098	1,012	1,086
		Diesel Use in Fleet	171	182	147	311	251	265	242	277	382	382	128	111	205	74	3	36
		CNG Use in Fleet	1,241	855	840	2,507	2,973	964	1,777	2,846	2,915	2,966	3,118	1,709	0	0	0	0
Scope 2	Indirect Energy - Location Based Approach <sup>(c)</sup>	All Electricity Purchased	61,261	44,214	43,436	34,207	33,042	45,984	47,621	33,637	35,045	35,063	39,726	31,523	34,353	35,118	36,020	33,604
		BPA Electricity Purchased <sup>(b)</sup>	6,326	2,475	2,427	1,846	2,105	2,309	1,838	1,767	1,841	1,216	1,850	1,420	1,438	1,462	3,463	3,976
	Indirect Energy - Market Based Approach	PSE Electricity Purchased <sup>(d)</sup>	UNKNOWN	277	387	543	782	881	1,027	907	1,026	1,088	775	79	107	80	152	126
		SCL Electricity Purchased	UNKNOWN	34	10	19	25	15	45	29	45	29	31	20	23	10	32	33
<b>TOTAL (tonnes)</b>			<b>23,106</b>	<b>20,086</b>	<b>19,745</b>	<b>21,585</b>	<b>23,041</b>	<b>21,294</b>	<b>20,356</b>	<b>21,502</b>	<b>22,969</b>	<b>23,004</b>	<b>22,090</b>	<b>17,700</b>	<b>11,119</b>	<b>12,035</b>	<b>13,861</b>	<b>13,605</b>
<b>Passenger Volume</b>			<b>29,289,026</b>	<b>31,553,166</b>	<b>32,823,220</b>	<b>33,223,111</b>	<b>34,826,741</b>	<b>37,498,267</b>	<b>42,340,537</b>	<b>45,737,115</b>	<b>46,934,619</b>	<b>49,849,520</b>	<b>51,829,239</b>	<b>20,045,348</b>	<b>36,154,015</b>	<b>45,964,167</b>	<b>50,885,450</b>	<b>52,670,712</b>
<b>CO2 per Passenger<sup>(e)</sup></b>			<b>0.789</b>	<b>0.637</b>	<b>0.602</b>	<b>0.650</b>	<b>0.662</b>	<b>0.568</b>	<b>0.481</b>	<b>0.470</b>	<b>0.489</b>	<b>0.461</b>	<b>0.426</b>	<b>0.883</b>	<b>0.308</b>	<b>0.262</b>	<b>0.272</b>	<b>0.258</b>

\*2005 is the baseline year for Port of Seattle's Scope 1&2 greenhouse gas reduction targets. Most baseline data is from the airport's 2006 published inventory.  
 Where "-" is shown, the value is zero, typically because the facility was not yet built. Where "UNKNOWN" is shown, the facility was operational but no data was collected in that year's inventory  
 Emissions associated with biogenic sources of energy are not included in the total fossil carbon emissions as they are part of the natural carbon cycle and are excluded under UNFCCC guidelines  
 (b) For 2005, this total includes tenants who are metered and billed. For all remaining years, billed tenants and billed users of electricity are not included in this total.  
 (c) The Port follows the GHG Protocol by including both Location- and Market-based electricity, but uses Market-based to track its goals due to our contractual ability to influence GHG intensity  
 (d) In 2019, the Port purchased PSE's Green Direct electricity for half of the year, which is why the emissions in the total only reflect half of the year's expected GHG emissions  
 (e) Units in Kilograms CO2 per Passenger

Energy Use from Scope 1 & 2 Sources at SEA Airport: 2005, 2010 - 2024

		2005*	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024		
Scope 1	Stationary Source	Natural Gas																	
		Central Plant Boiler	2,657,740	2,725,559	2,661,720	2,723,127	2,822,765	2,831,209	2,555,579	2,610,907	2,778,918	2,720,675	2,545,547	2,272,020	1,291,876	1,480,291	1,582,680	1,454,593	
		Pumphouse	UNKNOWN	1,091	1,867	1,643	2,632	1,236	544	890	496	14	176	1,664	5,936	6,890	2,189	0	
		Fleet Maintenance (AC2 Bldg)	UNKNOWN	66,548	69,454	65,741	61,551	51,171	55,991	54,855	55,069	56,798	43,206	13,065	11,557	15,087	9,171	0	
		Fire Department	UNKNOWN	37,613	36,163	28,371	26,724	27,057	23,687	23,695	32,593	29,424	29,000	25,210	24,795	27,354	7,409	0	
		Learning Center Building	UNKNOWN	8,517	8,136	10,103	8,215	8,401	8,574	8,639	9,237	8,464	7,339	8,442	7,254	6,882	1,825	0	
		Bus Maintenance Facility	-	-	-	12,492	21,755	20,917	21,289	27,167	33,067	32,478	45,157	39,667	36,647	36,771	9,411	0	
		Distribution Center	-	-	4,040	5,613	5,761	5,756	5,856	5,582	5,715	5,588	5,854	7,076	8,171	9,448	2,413	0	
		Cargo Building 161E	-	-	-	-	-	-	3,285	5,053	6,110	6,199	7,024	7,313	8,173	8,981	262	0	
		Interim Fire Station (built 2021)	-	-	-	-	-	-	-	-	-	-	-	-	-	835	1,840	17,823	0
		Cargo Building 166B-2380 S 166th St	-	-	-	-	-	-	-	-	22,270	47,852	73,857	80,877	75,190	75,214	740	0	
		Airfield Security Gate	-	-	-	-	-	-	-	-	2,435	697	712	1,576	1,590	1,967	1,741	0	
		<b>TOTAL NATURAL GAS</b>		<b>2,657,740</b>	<b>2,839,327</b>	<b>2,781,380</b>	<b>2,847,088</b>	<b>2,949,402</b>	<b>2,945,747</b>	<b>2,674,804</b>	<b>2,736,788</b>	<b>2,945,910</b>	<b>2,908,189</b>	<b>2,757,871</b>	<b>2,456,910</b>	<b>1,472,024</b>	<b>1,670,725</b>	<b>1,635,664</b>	<b>1,454,593</b>
		Biogenic Fuel <sup>(a)</sup>	Thermal Renewable Natural Gas	-	-	-	-	-	-	-	-	-	-	-	450,000	1,500,000	1,500,000	1,685,892	1,752,646
	Generator Diesel	<b>TOTAL DIESEL</b>	<b>UNKNOWN</b>	<b>16,391</b>	<b>10,536</b>	<b>15,844</b>	<b>23,883</b>	<b>15,695</b>	<b>14,784</b>	<b>10,195</b>	<b>6,451</b>	<b>69,405</b>	<b>36,111</b>	<b>28,384</b>	<b>41,118</b>	<b>43,857</b>	<b>50,953</b>	<b>61,777</b>	
	Mobile Source	Mobile Fleet																	
		Fossil Fuel Use																	
		Gasoline Delivered	144,268	115,814	119,876	122,363	113,301	120,165	121,181	117,750	119,360	133,536	132,540	117,573	127,008	124,140	114,081	122,389	
		Gasoline Commercial	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	1,237	126	-	173	405	434	
		Business Miles Personal Vehicles	UNKNOWN	1,548	1,840	1,764	2,129	1,611	2,227	1,952	1,688	1,143	1,409	226	204	712	966	870	
<b>TOTAL GASOLINE</b>		<b>144,268</b>	<b>117,362</b>	<b>121,716</b>	<b>124,127</b>	<b>115,430</b>	<b>121,776</b>	<b>123,408</b>	<b>119,702</b>	<b>121,048</b>	<b>134,679</b>	<b>135,186</b>	<b>117,924</b>	<b>127,212</b>	<b>125,025</b>	<b>115,252</b>	<b>123,693</b>		
<b>TOTAL DIESEL</b>		<b>16,745</b>	<b>17,802</b>	<b>14,362</b>	<b>30,499</b>	<b>24,548</b>	<b>25,973</b>	<b>23,734</b>	<b>27,091</b>	<b>37,415</b>	<b>37,415</b>	<b>12,518</b>	<b>10,883</b>	<b>20,042</b>	<b>7,208</b>	<b>336</b>	<b>3,510</b>		
<b>TOTAL CNG</b>	<b>179,710</b>	<b>123,864</b>	<b>121,658</b>	<b>363,173</b>	<b>430,597</b>	<b>139,657</b>	<b>257,382</b>	<b>412,206</b>	<b>422,275</b>	<b>429,624</b>	<b>451,633</b>	<b>247,484</b>	-	-	-	<b>39</b>			
Biogenic Fuel <sup>(a)</sup>	<b>TOTAL RENEWABLE NATURAL GAS</b>	-	-	-	-	-	<b>276,086</b>	<b>160,820</b>	-	-	-	-	94,948	385,277	357,760	425,123	401,736		
<b>TOTAL RENEWABLE DIESEL (R99)</b>	-	-	-	-	-	-	-	-	-	-	-	57,034	30,858	22,401	29,029	33,558	28,102		
Scope 2	Electricity																		
Airport-Only Electricity (BPA)	149,691,000	114,057,239	111,855,167	110,514,327	106,295,055	108,407,358	111,173,466	109,079,501	113,631,859	115,819,178	117,817,071	110,759,374	114,087,470	116,925,143	120,407,378	117,901,948			
SGSE electricity (b)	-	-	-	-	-	-	-	-	-	1,317,784	836,346	445,885	477,092	414,685	361,532	381,148			
Runway Lighting (Seattle City Light)	-	1,628,400	1,663,800	1,649,400	1,634,400	1,652,400	1,458,300	1,612,500	1,673,700	1,548,300	1,697,100	1,731,300	1,714,949	1,732,684	1,773,169	1,736,149			
Distribution Center (PSE)	-	-	131,729	128,154	128,676	140,079	140,257	146,290	161,218	161,605	168,096	167,130	150,265	151,501	159,755	156,419			
Bus Mnt Facility (PSE)	-	-	-	395,700	790,020	786,856	808,727	871,514	882,950	883,628	893,110	794,536	890,536	837,218	820,807	844,542			
North Employee Parking Lot (SCL)	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	439,435	431,340	472,118	477,299	437,179	458,227	448,729	305,329	434,316	552,911			
Westfield Office (PSE)	-	-	-	-	-	-	-	16,897	126,663	153,360	159,920	158,149	145,526	141,779	138,146	117,040			
Misc PSE SrCs (PSE)	UNKNOWN	704,479	852,758	823,514	845,987	1,042,102	917,589	987,208	935,412	1,108,282	1,275,735	1,032,095	1,161,955	1,117,324	1,389,498	1,214,325			
Misc SCL SrCs (SCL)	-	-	-	-	-	-	-	-	-	-	-	-	11,728	41,751	10,400	7,349			
<b>TOTAL ELECTRICITY</b>	<b>149,691,000</b>	<b>115,685,639</b>	<b>113,650,696</b>	<b>112,687,581</b>	<b>108,848,151</b>	<b>110,986,693</b>	<b>114,937,775</b>	<b>113,145,250</b>	<b>117,883,920</b>	<b>120,151,652</b>	<b>122,448,211</b>	<b>115,100,811</b>	<b>118,611,158</b>	<b>121,252,729</b>	<b>125,133,469</b>	<b>122,530,683</b>			

(a) Biogenic CO<sub>2</sub> emissions from the combustion of renewable fuels are reported separately and excluded from total fossil Scope 1 emissions, consistent with GHG Protocol guidance that treats biogenic CO<sub>2</sub> as carbon-neutral.



Emission Factors Used for Scope 1 & 2 Sources at SEA Airport

Scope	Year	Fuel	Emission Factor	Original Units	Converted Emission Factor	Converted Units	Citation
1	All	Natural Gas in Boilers	53.0600	kg CO <sub>2</sub> /MMBTU	0.00530600	tonnes CO <sub>2</sub> /therm	<a href="https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf">https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf</a>
	All	Diesel in Generators	10.2100	kg CO <sub>2</sub> /gallon	0.01021000	tonnes CO <sub>2</sub> /gallon	<a href="https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf">https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf</a>
	All	Gasoline in Vehicles	8.7800	kg CO <sub>2</sub> /gallon	0.00878000	tonnes CO <sub>2</sub> /gallon	<a href="https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf">https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf</a>
	All	Diesel in Vehicles	10.2100	kg CO <sub>2</sub> /gallon	0.01021000	tonnes CO <sub>2</sub> /gallon	<a href="https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf">https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf</a>
	All	Natural Gas in Vehicles	0.0545	kg CO <sub>2</sub> /scf	0.00690352	tonnes CO <sub>2</sub> /GGE	<a href="https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf">https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf</a>
	2	2010	PSE Electricity	n/a	n/a	0.00039338	tonnes CO <sub>2</sub> /kWh
2011		PSE Electricity	n/a	n/a	0.00039338	tonnes CO <sub>2</sub> /kWh	<a href="http://pse.com/aboutpse/Environment/Documents/GHG_InVENTORY2011.pdf">http://pse.com/aboutpse/Environment/Documents/GHG_InVENTORY2011.pdf</a>
2012		PSE Electricity	n/a	n/a	0.00040306	tonnes CO <sub>2</sub> /kWh	<a href="http://pse.com/aboutpse/Environment/Documents/GHG_InVENTORY2012.pdf">http://pse.com/aboutpse/Environment/Documents/GHG_InVENTORY2012.pdf</a>
2013		PSE Electricity	n/a	n/a	0.00044304	tonnes CO <sub>2</sub> /kWh	<a href="http://pse.com/aboutpse/Environment/Documents/GHG_InVENTORY2013.pdf">http://pse.com/aboutpse/Environment/Documents/GHG_InVENTORY2013.pdf</a>
2014		PSE Electricity	n/a	n/a	0.00044721	tonnes CO <sub>2</sub> /kWh	<a href="http://pse.com/aboutpse/Environment/Documents/GHG_InVENTORY2014.pdf">http://pse.com/aboutpse/Environment/Documents/GHG_InVENTORY2014.pdf</a>
2015		PSE Electricity	n/a	n/a	0.00055010	tonnes CO <sub>2</sub> /kWh	<a href="https://pse.com/aboutpse/Environment/Documents/GHG_InVENTORY_2015.pdf">https://pse.com/aboutpse/Environment/Documents/GHG_InVENTORY_2015.pdf</a>
2016		PSE Electricity	0.989	n/a	0.00044860	tonnes CO <sub>2</sub> /kWh	<a href="https://www.pse.com/-/media/PDFs/GHG_InVENTORY_2016.pdf">https://www.pse.com/-/media/PDFs/GHG_InVENTORY_2016.pdf</a>
2017		PSE Electricity	1.074	n/a	0.00048716	tonnes CO <sub>2</sub> /kWh	<a href="https://www.pse.com/-/media/PDFs/GHG_InVENTORY_2017.pdf">https://www.pse.com/-/media/PDFs/GHG_InVENTORY_2017.pdf</a>
2018		PSE Electricity	1.04	lbs CO <sub>2</sub> /kWh	0.00047174	tonnes CO <sub>2</sub> /kWh	<a href="https://www.pse.com/-/media/PDFs/GHG_InVENTORY_2018.pdf">https://www.pse.com/-/media/PDFs/GHG_InVENTORY_2018.pdf</a>
2019		PSE Electricity	1.15	lbs CO <sub>2</sub> /kWh	0.00052163	tonnes CO <sub>2</sub> /kWh	<a href="https://www.pse.com/-/media/PDFs/2019-Greenhouse-InventoryFinalPSEWeb-1.pdf">https://www.pse.com/-/media/PDFs/2019-Greenhouse-InventoryFinalPSEWeb-1.pdf</a>
2020		PSE Electricity	0.919	lbs CO <sub>2</sub> /kWh	0.00041685	tonnes CO <sub>2</sub> /kWh	<a href="https://www.pse.com/-/media/PDFs/GHG_InVENTORY_2020.pdf">https://www.pse.com/-/media/PDFs/GHG_InVENTORY_2020.pdf</a>
2021		PSE Electricity	0.917	lbs CO <sub>2</sub> /kWh	0.00041594	tonnes CO <sub>2</sub> /kWh	<a href="https://www.pse.com/-/media/PDFs/GHG_InVENTORY_2021.pdf">https://www.pse.com/-/media/PDFs/GHG_InVENTORY_2021.pdf</a>
2022		PSE Electricity	0.9040	lbs CO <sub>2</sub> /kWh	0.00041004	tonnes CO <sub>2</sub> /kWh	<a href="https://www.pse.com/-/media/PDFs/Sustainability/GHG-InVENTORY-2022RY">https://www.pse.com/-/media/PDFs/Sustainability/GHG-InVENTORY-2022RY</a>
2023		PSE Electricity	0.942	lbs CO <sub>2</sub> /kWh	0.00042728	tonnes CO <sub>2</sub> /kWh	<a href="https://www.pse.com/-/media/PDFs/GHG_InVENTORY_2023.pdf">https://www.pse.com/-/media/PDFs/GHG_InVENTORY_2023.pdf</a>
2024		PSE Electricity	0.901	lbs CO <sub>2</sub> /kWh	0.00040869	tonnes CO <sub>2</sub> /kWh	<a href="https://www.pse.com/-/media/PDFs/GHG_InVENTORY_2024.pdf">https://www.pse.com/-/media/PDFs/GHG_InVENTORY_2024.pdf</a>
2005		BPA Electricity	0.04226	tonnes CO <sub>2</sub> /MWh	0.00004226	tonnes CO <sub>2</sub> /kWh	BPA correspondence using eGRID/TCR methodology
2010		BPA Electricity	0.0217	tonnes CO <sub>2</sub> /MWh	0.00002170	tonnes CO <sub>2</sub> /kWh	Same as 2011 - no data
2011		BPA Electricity	0.0217	tonnes CO <sub>2</sub> /MWh	0.00002170	tonnes CO <sub>2</sub> /kWh	BPA correspondence using eGRID/TCR methodology
2012		BPA Electricity	0.0167	tonnes CO <sub>2</sub> /MWh	0.00001670	tonnes CO <sub>2</sub> /kWh	BPA correspondence using eGRID/TCR methodology
2013		BPA Electricity	0.0198	tonnes CO <sub>2</sub> /MWh	0.00001980	tonnes CO <sub>2</sub> /kWh	BPA correspondence using eGRID/TCR methodology
2014		BPA Electricity	0.0213	tonnes CO <sub>2</sub> /MWh	0.00002130	tonnes CO <sub>2</sub> /kWh	BPA correspondence using eGRID/TCR methodology
2015		BPA Electricity	0.0165	tonnes CO <sub>2</sub> /MWh	0.00001653	tonnes CO <sub>2</sub> /kWh	BPA correspondence using eGRID/TCR methodology
2016		BPA Electricity	0.0162	tonnes CO <sub>2</sub> /MWh	0.00001620	tonnes CO <sub>2</sub> /kWh	BPA correspondence using eGRID/TCR methodology
2017		BPA Electricity	0.0162	tonnes CO <sub>2</sub> /MWh	0.00001620	tonnes CO <sub>2</sub> /kWh	BPA correspondence using eGRID/TCR methodology
2018		BPA Electricity	0.0105	tonnes CO <sub>2</sub> /MWh	0.00001050	tonnes CO <sub>2</sub> /kWh	BPA correspondence using eGRID/TCR methodology
2019		BPA Electricity	0.0157	tonnes CO <sub>2</sub> /MWh	0.00001570	tonnes CO <sub>2</sub> /kWh	BPA correspondence using eGRID/TCR methodology
2020		BPA Electricity	0.0128	tonnes CO <sub>2</sub> /MWh	0.00001282	tonnes CO <sub>2</sub> /kWh	BPA correspondence using eGRID/TCR methodology
2021		BPA Electricity	0.0126	tonnes CO <sub>2</sub> /MWh	0.00001260	tonnes CO <sub>2</sub> /kWh	BPA correspondence using eGRID/TCR methodology
2022		BPA Electricity	0.0125	tonnes CO <sub>2</sub> /MWh	0.00001250	tonnes CO <sub>2</sub> /kWh	BPA correspondence using eGRID/TCR methodology
2023		BPA Electricity	63.41	lbs CO <sub>2</sub> /MWh	0.00002876	tonnes CO <sub>2</sub> /kWh	BPA correspondence using eGRID/TCR methodology
2024		BPA Electricity	74.49	lbs CO <sub>2</sub> /MWh	0.00003379	tonnes CO <sub>2</sub> /kWh	BPA correspondence using eGRID/TCR methodology
2010		SCL Retail Electricity	45.57	lbs CO <sub>2</sub> /MWh	0.00002066	tonnes CO <sub>2</sub> /kWh	SCL correspondence & SCL retail factors found at <a href="https://www.theclimaterestory.org/our-members/cris-">https://www.theclimaterestory.org/our-members/cris-</a>
2011		SCL Retail Electricity	13.77	lbs CO <sub>2</sub> /MWh	0.00000625	tonnes CO <sub>2</sub> /kWh	SCL correspondence & SCL retail factors found at <a href="https://www.theclimaterestory.org/our-members/cris-">https://www.theclimaterestory.org/our-members/cris-</a>
2012		SCL Retail Electricity	25.62	lbs CO <sub>2</sub> /MWh	0.00001162	tonnes CO <sub>2</sub> /kWh	SCL correspondence & SCL retail factors found at <a href="https://www.theclimaterestory.org/our-members/cris-">https://www.theclimaterestory.org/our-members/cris-</a>
2013		SCL Retail Electricity	33.23	lbs CO <sub>2</sub> /MWh	0.00001507	tonnes CO <sub>2</sub> /kWh	SCL correspondence & SCL retail factors found at <a href="https://www.theclimaterestory.org/our-members/cris-">https://www.theclimaterestory.org/our-members/cris-</a>
2014		SCL Retail Electricity	20.08	lbs CO <sub>2</sub> /MWh	0.00000911	tonnes CO <sub>2</sub> /kWh	SCL correspondence & SCL retail factors found at <a href="https://www.theclimaterestory.org/our-members/cris-">https://www.theclimaterestory.org/our-members/cris-</a>
2015		SCL Retail Electricity	52.44	lbs CO <sub>2</sub> /MWh	0.00002379	tonnes CO <sub>2</sub> /kWh	SCL correspondence & SCL retail factors found at <a href="https://www.theclimaterestory.org/our-members/cris-">https://www.theclimaterestory.org/our-members/cris-</a>
2016		SCL Retail Electricity	31.22	lbs CO <sub>2</sub> /MWh	0.00001416	tonnes CO <sub>2</sub> /kWh	SCL correspondence & SCL retail factors found at <a href="https://www.theclimaterestory.org/our-members/cris-">https://www.theclimaterestory.org/our-members/cris-</a>
2017		SCL Retail Electricity	46.37	lbs CO <sub>2</sub> /MWh	0.00002103	tonnes CO <sub>2</sub> /kWh	SCL correspondence & SCL retail factors found at <a href="https://www.theclimaterestory.org/our-members/cris-">https://www.theclimaterestory.org/our-members/cris-</a>
2018		SCL Retail Electricity	32.05	lbs CO <sub>2</sub> /MWh	0.00001454	tonnes CO <sub>2</sub> /kWh	SCL correspondence & SCL retail factors found at <a href="https://www.theclimaterestory.org/our-members/cris-">https://www.theclimaterestory.org/our-members/cris-</a>
2019		SCL Retail Electricity	32.05	lbs CO <sub>2</sub> /MWh	0.00001454	tonnes CO <sub>2</sub> /kWh	SCL correspondence & SCL retail factors found at <a href="https://www.theclimaterestory.org/our-members/cris-">https://www.theclimaterestory.org/our-members/cris-</a>
2020		SCL Retail Electricity	19.64	lbs CO <sub>2</sub> /MWh	0.00000891	tonnes CO <sub>2</sub> /kWh	SCL correspondence & SCL retail factors found at <a href="https://www.theclimaterestory.org/our-members/cris-">https://www.theclimaterestory.org/our-members/cris-</a>
2021		SCL Retail Electricity	23.17	lbs CO <sub>2</sub> /MWh	0.00001051	tonnes CO <sub>2</sub> /kWh	SCL correspondence & SCL retail factors found at <a href="https://www.theclimaterestory.org/our-members/cris-">https://www.theclimaterestory.org/our-members/cris-</a>
2021		SCL Retail Electricity	0.03	lb CH <sub>4</sub> /MWh	0.00000001	tonnes CH <sub>4</sub> /kWh	SCL retail factor for 2021, found at: <a href="https://theclimaterestory.org/our-members/cris-public-reports/">https://theclimaterestory.org/our-members/cris-public-reports/</a>
2021		SCL Retail Electricity	0.004	lbs N <sub>2</sub> O/MWh	0.000000018	tonnes N <sub>2</sub> O/kWh	SCL retail factor for 2021, found at: <a href="https://theclimaterestory.org/our-members/cris-public-reports/">https://theclimaterestory.org/our-members/cris-public-reports/</a>
2022		SCL Retail Electricity	10.46	lbs CO <sub>2</sub> /MWh	0.00000475	tonnes CO <sub>2</sub> /kWh	SCL retail factor for 2022, found at: <a href="https://theclimaterestory.org/our-members/cris-public-reports/">https://theclimaterestory.org/our-members/cris-public-reports/</a>
2022		SCL Retail Electricity	0.02	lb CH <sub>4</sub> /MWh	0.00000001	tonnes CH <sub>4</sub> /kWh	SCL retail factor for 2022, found at: <a href="https://theclimaterestory.org/our-members/cris-public-reports/">https://theclimaterestory.org/our-members/cris-public-reports/</a>
2022	SCL Retail Electricity	0.003	lbs N <sub>2</sub> O/MWh	0.000000014	tonnes N <sub>2</sub> O/kWh	SCL retail factor for 2022, found at: <a href="https://theclimaterestory.org/our-members/cris-public-reports/">https://theclimaterestory.org/our-members/cris-public-reports/</a>	
2023	SCL Retail Electricity	31.53	lbs CO <sub>2</sub> /MWh	0.00001431	tonnes CO <sub>2</sub> /kWh	SCL retail factor for 2023, found at: <a href="https://theclimaterestory.org/our-members/cris-public-reports/">https://theclimaterestory.org/our-members/cris-public-reports/</a>	
2023	SCL Retail Electricity	0.03	lb CH <sub>4</sub> /MWh	0.00000001	tonnes CH <sub>4</sub> /kWh	SCL retail factor for 2023, found at: <a href="https://theclimaterestory.org/our-members/cris-public-reports/">https://theclimaterestory.org/our-members/cris-public-reports/</a>	
2023	SCL Retail Electricity	0.004	lbs N <sub>2</sub> O/MWh	0.00000002	tonnes N <sub>2</sub> O/kWh	SCL retail factor for 2023, found at: <a href="https://theclimaterestory.org/our-members/cris-public-reports/">https://theclimaterestory.org/our-members/cris-public-reports/</a>	
2005	eGRID NWPP Electricity	902.24	lbs CO <sub>2</sub> /MWh	0.00040925	tonnes CO <sub>2</sub> /kWh	<a href="https://www.epa.gov/energy/eGRID">https://www.epa.gov/energy/eGRID</a>	
2010-11	eGRID NWPP Electricity	842.58	lbs CO <sub>2</sub> /MWh	0.00038219	tonnes CO <sub>2</sub> /kWh	<a href="https://www.epa.gov/energy/eGRID">https://www.epa.gov/energy/eGRID</a>	
2012-13	eGRID NWPP Electricity	669.23	lbs CO <sub>2</sub> /MWh	0.00030356	tonnes CO <sub>2</sub> /kWh	<a href="https://www.epa.gov/energy/eGRID">https://www.epa.gov/energy/eGRID</a>	
2014-15	eGRID NWPP Electricity	913.42	lbs CO <sub>2</sub> /MWh	0.00041432	tonnes CO <sub>2</sub> /kWh	<a href="https://www.epa.gov/energy/eGRID">https://www.epa.gov/energy/eGRID</a>	
2016-17	eGRID NWPP Electricity	655.41	lbs CO <sub>2</sub> /MWh	0.00029729	tonnes CO <sub>2</sub> /kWh	<a href="https://www.epa.gov/energy/eGRID">https://www.epa.gov/energy/eGRID</a>	
2018	eGRID NWPP Electricity	643.36	lbs CO <sub>2</sub> /MWh	0.00029182	tonnes CO <sub>2</sub> /kWh	<a href="https://www.epa.gov/energy/eGRID">https://www.epa.gov/energy/eGRID</a>	
2019	eGRID NWPP Electricity	715.24	lbs CO <sub>2</sub> /MWh	0.00032443	tonnes CO <sub>2</sub> /kWh	<a href="https://www.epa.gov/energy/eGRID">https://www.epa.gov/energy/eGRID</a>	
2020	eGRID NWPP Electricity	603.79	lbs CO <sub>2</sub> /MWh	0.00027387	tonnes CO <sub>2</sub> /kWh	<a href="https://www.epa.gov/energy/eGRID">https://www.epa.gov/energy/eGRID</a>	
2021-22	eGRID NWPP Electricity	638.52	lbs CO <sub>2</sub> /MWh	0.00028963	tonnes CO <sub>2</sub> /kWh	<a href="https://www.epa.gov/energy/eGRID">https://www.epa.gov/energy/eGRID</a>	
2023	eGRID NWPP Electricity	634.90	lbs CO <sub>2</sub> /MWh	0.00028765	tonnes CO <sub>2</sub> /kWh	<a href="https://www.epa.gov/energy/eGRID">https://www.epa.gov/energy/eGRID</a>	
2024	eGRID NWPP Electricity	605.79	lbs CO <sub>2</sub> /MWh	0.000274781	tonnes CO <sub>2</sub> /kWh	<a href="https://www.epa.gov/energy/eGRID">https://www.epa.gov/energy/eGRID</a>	

Note: The emission factor for Renewable Natural Gas (RNG) and 99% of Renewable Diesel (R99) is 0 because combustion of the fuel is considered to produce biogenic CO<sub>2</sub> emissions. These emissions and are not included in the total emissions estimate, because they are considered to be part of the natural carbon cycle and so are excluded under UNFCCC guidelines.