

Review FY2024 - CO2E
Renewability % by Use

Hard copy
Formula

Segment	EPI	Unit	Total CO2E boundary			CW BE			CW NL			M&W			Specialties			Maths			Cooling			Group (CO2) - not part of the certified boundary, provided for context only	
			2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024		
1 Enable the Circular Economy (Turn our customer's waste into new products)																									
Activity 1 - Energy																									
Total renewable electricity generated (kWh)																									
WWh	182,802,001	21,563,567	21,563,567	40,413,604	28,263,027	27,601,574	68,587,000	87,358,937	10,217,076	12,211,507	8,868,428	10,712,070	580,780	591,505	594,532	685,780	565,563	574,979	-	-	-	-	-	-	-
Total self-generated renewable energy used on site (MWh)																									
WWh	22,548,024	15,930,720	15,930,720	8,583,232	5,750,252	7,619,214	21,098,000	28,177,372	41,314,094	1,859,292	128,827	2,144,844	376,225	478,229	478,229	478,229	478,229	478,229	478,229	478,229	478,229	478,229	478,229	478,229	478,229
Total renewable energy used to go to grid (MWh)																									
WWh	77,344,877	59,632,847	59,632,847	11,830,372	22,512,775	19,982,360	47,488,999	59,181,565	66,102,982	8,942,215	8,743,997	8,567,226	-	-	-	-	-	-	-	-	-	-	-	-	-
Total electricity purchased (MWh)																									
WWh	143,853,144	145,931,797	138,602,840	11,643,624	11,492,825	10,782,360	40,744,810	49,076,960	37,844,283	45,641,982	42,147,289	58,486,464	26,381,495	25,488,253	26,279,154	13,622,911	13,003,626	12,897,400	13,749,021	12,454,067	13,315,727	493,828	1,813,691	1,978,192	
For on-site use																									
WWh	36,136,205	44,000,102	44,000,102	1,828,102	4,571,126	54,792,267	37,146,717	35,146,393	-	-	-	393,170	1,742,812	4,414,983	9,203,053	-	-	-	173,568	1,742,812	4,414,983	8,674,136	7,248,218	528,523	
For heat use																									
WWh	10,841,651	10,841,651	10,841,651	11,653,571	10,972,271	7,718,520	1,450,750	7,087,500	5,643,552	62,147,289	17,662,500	28,839,700	18,489,200	17,270,151	13,612,971	11,051,500	17,563,500	10,006,410	11,602,700	14,620,200	4,620,200	4,620,200	4,620,200	4,620,200	
For on-site use																									
WWh	256,828,400	25,870,420	87,140,000	11,659,103	25,813,400	7,062,000	4,770,124	4,083,470	6,100,400	45,560,864	62,080,275	5,413,611	23,623,400	18,000,100	17,176,220	13,628,200	12,099,041	12,480,912	9,097,108	5,813,158	4,611,961	209,314	207,702	506,955	
For heat use																									
WWh	768,600	973,176	1,279,600	4,400	12,300	59,677	67,420	486,200	60,210	67,176	60,324	13,961	19,611	6,223	4,930	4,880	23,397	9,261	27,000	9,261	27,000	23,104	381,400	160,660	
Emissions																									
WWh	377,205	377,205	377,205	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total electricity consumed (MWh)																									
WWh	187,372,999	136,150,057	136,150,057	20,242,216	16,393,473	15,209,540	52,242,810	51,235,497	37,745,259	48,739,124	64,539,813	90,479,600	25,918,438	25,099,242	26,000,350	16,210,001	13,471,511	13,490,038	11,729,727	12,426,315	11,111,939	303,330	931,500	1,033,468	
Share of renewable electricity used on site (this excludes heat)																									
%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Emissions loaded as such																									
WWh	1,776,700	4,788,949	6,565,314	-	-	-	1,778,700	4,788,949	6,565,314	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2 Reduce the footprint of our operations																									
Grid footprint																									
Scope 1 & 2 location-based, market-based																									
CO2e	517,660	587,391	687,071	35,349	77,885	95,177	184,634	184,981	211,270	230,999	254,930	236,139	-	-	-	-	-	-	-	-	-	-	-	-	-
Scope 1 & 2 location-based, location-based																									
CO2e	316,090	349,020	400,201	32,681	77,699	95,791	196,984	174,995	189,261	229,720	246,046	232,804	-	-	-	-	-	-	-	-	-	-	-	-	-
Scope 1 location-based																									
CO2e	187,400	479,150	653,736	90,929	79,820	19,466	182,282	163,166	158,100	206,188	220,488	214,006	-	-	-	-	-	-	-	-	-	-	-	-	-
Contribution from																									
CO2e	6,871	8,379	5,430	1,929	1,809	9,790	4,903	8,500	8,860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Contribution from heat																									
CO2e	130,503	117,489	111,734	43,380	14,825	12,661	17,606	19,380	19,730	7,764	2,895	2,380	6,614	6,139	6,380	6,042	5,542	5,721	5,342	5,721	4	4	4	4	
Process emissions from																									
CO2e	88,464	73,647	66,893	23,214	21,070	24,569	26,953	21,663	18,847	16,164	20,100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Process emissions from heat																									
CO2e	197,614	227,816	215,477	16,833	15,029	14,903	19,930	17,880	16,922	193,971	193,433	182,414	1,901	1,431	1,151	-	-	-	1,901	1,431	1,151	-	-	-	-
Contribution from heat																									
CO2e	14,411	40,019	44,466	2,400	2,400	48,476	17,141	41,900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scope 2 location-based																									
CO2e	46,790	16,709	16,709	1,901	1,807	1,813	14,809	12,795	11,360	16,139	18,138	8,680	6,900	6,140	5,267	2,696	2,421	2,111	6,140	6,140	6,140	6,140	6,140	6,140	
Scope 2 location-based, location-based																									
CO2e	46,016	16,016	16,016	1,901	1,807	1,813	14,809	12,795	11,360	16,139	18,138	8,680	6,900	6,140	5,267	2,696	2,421	2,111	6,140	6,140	6,140	6,140	6,140	6,140	
Scope 2 location-based, market-based																									
CO2e	66,165	292	66,165	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700
Scope 2 market-based																									
CO2e	66,165	13,941	13,941	2,411	2,411	2,411	2,411	2,411	2,411	2,411	2,411	2,411	2,411	2,411	2,411	2,411	2,411	2,411	2,411	2,411	2,411	2,411	2,411	2,411	2,411
Scope 2 market-based, location-based																									
CO2e	40,408	34,804	37,489	2,412	1,561	1,099	2,193	3,841	2,479	28,891	27,406	25,980	6,381	4,001	3,031	1,565	1,005	3,412	3,031	3,031	3,031	3,031	3,031	3,031	
Scope 3 Use in CO2e																									
CO2e	269,100	330,020	317,170	131,100	114,013	240,950	188,577	173,145	169,800	198,811	191,713	191,713	87,167	87,167	87,167	17,491	17,491	17,491	8,400	49,527	96,977	6,065	14,197	12,600	
Cat 1 - Purchased goods and services																									
CO2e	157,466	288,266	289,797	51,466	50,606	90,099	68,146	48,146	37,804	90,804	93,100	13,000	10,671	11,311	11,311	3,506	2,847	4,579	49,974	89,974	11	6,262	6,262	4,113	
Cat 2 - Fuel and energy related (MWh)																									
CO2e	42,383	39,447	37,489	10,899	8,877	8,869	21,010	20,989	18,300	7,771	7,350	5,945	2,014	1,820	1,820	1,820	1,820	1,820	1,820	1,820	1,820	1,820	1,820	1,820	
Cat 3 - Waste																									
CO2e	156,217	149,824	152,180	46,217	49,217	138,434	56,170	66,217	66,217	27,931	42,908	46,561	11,111	14,200	20,000	238	1,613	1,613	1,613	1,613	1,613	1,613	1,613	1,613	
Cat 4 - Business travel																									
CO2e	801	1,100	1,100	277	277	181	384	404	384	78	105	100	80	80	80	212	212	212	89	89	89	89	89	89	
Cat 5 - Employee commuting																									
CO2e	10,082	10,082	10,082	2,946	2,946	2,946	1,718	1,718	1,718	5,564	5,564	5,564	5,564	5,564	5,564	5,564	5,564	5,564	5,564	5,564	5,564	5,564	5,564	5,564	
Cat 6 - Investments																									
CO2e	13,408	13,408	13,408	6,006	5,719	6,133	6,180	42,000	46,287	628	699	1,797	1,711	2,719	2,428	-	-	-	1,711	2,719	2,428	6,323	1,851	1,851	
COMBUSTION (excluding out)																									
BIO - on site and on-site																									
CO2e	1,139	1,139	1,139	1,139	1,139	1,139	1,139	1,139	1,139	1,139	1,139	1,139	1,139	1,139	1,139	1,139	1,139	1,139	1,139	1,139	1,139	1,139	1,139	1,139	
BIO - in heat trucks																									
CO2e	6,139	6,139	6,139	6,139	6,139	6,139	6,139	6,139	6,139	6,139	6,139	6,139	6,139	6,139	6,139	6,139	6,139	6,139	6,139	6,139	6,139	6,139	6,139	6,139	
BIO - in containers																									
CO2e	1,34	1,34	1,34	1,34	1,34	1,34	1,34	1,34	1,34	1,34	1,34	1,34	1,34	1,34	1,34	1,34	1,34	1,34	1,34	1,34	1,34	1,34	1,34	1,34	
NON - BIO - site and on-site																									
CO2e	35,172	35,172	35,172	30,864	14,244	2,387	6,237	8,260	19,144	15,813	7,630	2,267	2,260	6,241	4,200	5,271	6,000	3,522	5,248	524	177	847	14	11	
NON - BIO - heat trucks																									
CO2e	31,188	79,370	79,370	28,111	26,397	26,046	64,986	58,584	31,600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
NON - BIO - in containers																									
CO2e	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660	
COMBUSTION - on site and on-site																									
CO2e	35,172	35,172	35,172	30,864	14,244	2,387	6,237	8,260	19																