



## 5.1. CO2-emission reporting Renewi Netherlands Holding b.v. 2019-2023

CO2-equivalent in ton	Emission sources	Commercial Waste NL		Mineraiz & Water		Specialities		
		CALENDAR YEAR	Delta		Delta		Delta	
		FISCAL YEAR	Restated	Delta	Restated	Delta	Restated	Delta
<b>Scope 1</b>								
<b>Direct emissions from processes</b>								
	2019	54,248			211,904			0
	2020	52,096			187,875			0
	2021	51,463			172,497			0
	H1-2021	23,399			92,651			0
	Q1 CV21	11,700			46,325			0
	Q2 CV21	11,700	26,549	127%	46,325	41,100	-11%	0
	H2-2021	28,264	53,098	88%	79,846	82,199	3%	0
	Q3 CV21	14,132	26,549	88%	39,923	41,100	3%	0
	Q4 CV21	14,132	26,549	88%	39,923	41,100	3%	0
	2022							
	H1-2022	22,893	48,161	110%	80,318	78,839	-2%	0
	Q1 CV22	11,447	26,549	132%	40,159	41,100	2%	0
	Q2 CV22	11,447	21,611	89%	40,159	37,740	-6%	0
	Q3 CV22	n/a	21,611	n/a	37,740	n/a	n/a	368
	Q4 CV22	n/a	21,611	n/a	37,740	n/a	n/a	368
	2023							
	Q1 CV23	n/a	21,611	n/a	37,740	n/a	n/a	368
<b>Fuel (non-gas-Diesel, Petrol) consumption - TRUCKS</b>								
	2019	84,023			4,962			0
	2020	57,819			0			0
	2021	74,303			0			0
	H1-2021	37,151			0			0
	Q1 CV21	18,576			0			0
	Q2 CV21	18,576	17,313	-7%	0	0	0	0
	H2-2021	37,273	34,627	-7%	0	0	0	0
	Q3 CV21	18,637	17,313	-7%	0	0	0	0
	Q4 CV21	18,637	17,313	-7%	0	0	0	0
	2022							
	H1-2022	35,651	31,526	-12%	0	0	0	0
	Q1 CV22	17,825	17,313	-3%	0	0	0	0
	Q2 CV22	17,825	14,213	-20%	0	0	0	0
	Q3 CV22	n/a	12,122	n/a	0	0	n/a	0
	Q4 CV22	n/a	15,835	n/a	0	0	n/a	0
	2023							
	Q1 CV23	n/a	14,869	n/a	0	0	n/a	0
<b>Gas (LNG, LPG) consumption - TRUCKS</b>								
	2019	0			0			0
	2020	0			0			0
	2021	0			0			0
	H1-2021	0			0			0
	Q1 CV21	0			0			0
	Q2 CV21	0	0	0	0	0	0	0
	H2-2021	0	0	0	0	0	0	0
	Q3 CV21	0	0	0	0	0	0	0
	Q4 CV21	0	0	0	0	0	0	0
	2022							
	H1-2022	0	0	0	0	0	0	0
	Q1 CV22	0	0	0	0	0	0	0
	Q2 CV22	0	12	0	0	0	0	0
	Q3 CV22	n/a	12	n/a	0	0	n/a	0
	Q4 CV22	n/a	12	n/a	0	0	n/a	0
	2023							
	Q1 CV23	n/a	10	n/a	0	0	n/a	0
<b>Fuel (non-gas-Diesel, Petrol,Kerosene) consumption - ON SITE</b>								
	2019	13,960			5,925			2,516
	2020	9,350			5,512			2,500
	2021	11,861			6,044			2,649
	H1-2021	5,908			3,156			1,276
	Q1 CV21	2,954			1,578			638
	Q2 CV21	2,954	0	-100%	1,578	1,134	-28%	638
	H2-2021	5,954	0	-100%	2,888	2,268	-21%	1,373
	Q3 CV21	2,977	0	-100%	1,444	1,134	-21%	686
	Q4 CV21	2,977	0	-100%	1,444	1,134	-21%	686
	2022							
	H1-2022	5,801	2,334	-60%	2,203	1,760	-20%	1,250
	Q1 CV22	2,901	0	-100%	1,101	1,134	3%	625
	Q2 CV22	2,901	2,334	-20%	1,101	626	-43%	625
	Q3 CV22	n/a	1,981	n/a	484	n/a	n/a	532
	Q4 CV22	n/a	2,601	n/a	459	n/a	n/a	539
	2023							
	Q1 CV23	n/a	5,042	n/a	465	n/a	n/a	617
<b>Gas (natural gas, propane) consumption - ON SITE</b>								
	2019	8,718			5,807			4,247
	2020	7,247			4,134			3,928
	2021	6,460			4,672			4,265
	H1-2021	3,115			2,797			2,164
	Q1 CV21	1,558			1,398			1,082
	Q2 CV21	1,558	1,696	9%	1,398	774	-45%	1,082
	H2-2021	3,345	3,392	1%	1,876	1,548	-17%	2,101
	Q3 CV21	1,672	1,696	1%	938	774	-17%	1,050
	Q4 CV21	1,672	1,696	1%	938	774	-17%	1,050
	2022							
	H1-2022	3,324	3,681	11%	731	811	11%	2,149
	Q1 CV22	1,662	1,696	2%	366	774	112%	1,075
	Q2 CV22	1,662	3,985	19%	366	37	-90%	1,147
	Q3 CV22	n/a	1,767	n/a	266	n/a	n/a	923

Note: Belgium not previously included in the boundary

### Commentary to the restatement:

Overall:

- Note that the reporting boundary has been verified, refined and an operational control boundary has been consistently adopted. This resulted in increased transparency on a division level down to site-level view.
- Emission Factors have been revisited. The results presented have not been calculated with the factors from emissiefactoren.nl, but from a range of international sources. In the future we are considering developing a flexible reporting with ability to allocate multiple sets of factors, depending on which body we are reporting to. However at the moment, we apply one methodology consistently across the whole Group.
- Due to multiple fundamental changes to the methodology, the segments are not easily comparable. The below explanation aims to provide directional insight about the changes introduced during the restatement, but is by no means a complete explanation of the movements. We were forced to approximate or reclassify certain records across the categories to force-fit them to comparability with the old reporting framework.

- Process emissions were reviewed for the first time separating the biogenic and non-biogenic emissions. This impacts the CW NL and M&W results
- For Coolrec, a conservative assumption has been made for potential fugitives from the process of the recovery of coolants from white goods.
- M&W has identified a certain part of emissions that was double counted (FY22) which was then corrected in FY23 - namely the fuel used in process to maintain its continuity (once counted as fuel, once as process emission)

- There are no trucks in M&W and Coolrec, Maltha, hence for the 2 divisions the results remain 0

- Fuel-related emissions are now split between scope 1 and scope 3: the WTT factor is calculated in Scope 3 category 3, and TTW in Scope 1. As a result, in this table, the emissions are adequately lower, but they do appear in the Scope 3 table below instead. This is contrary to the recommendation from CO2 Prestatieladder but in line with the GHG protocol. We have decided to as a priority improve reporting according to one single methodology and focus on implementation rather than crafting multiple reporting approaches for multiple disclosure needs.

- In FY23 we managed to isolate the data for LNG purchase for trucks from other applications. As a result, these show in CW NL for the first time, being previously assumed to be applied "on site". The contribution is not sizeable.

- Fuel-related emissions are now split between scope 1 and scope 3: the WTT factor is calculated in Scope 3 category 3, and TTW in Scope 1. As a result, in this table, the emissions are adequately lower, but they do appear in the Scope 3 table below instead. This is contrary to the recommendation from CO2 Prestatieladder but in line with the GHG protocol. We have decided to as a priority improve reporting according to one single methodology and focus on implementation rather than crafting multiple reporting approaches for multiple disclosure needs.

[NEW] Q4 CY22	n/a	3,602	n/a	291	n/a	1,340	
[total not continued - replaced with financial year tracking] 2023	n/a		n/a		n/a		
[NEW] Q1 CY23	n/a	2,413	n/a	139	n/a	1,556	
<b>Fuel (any diesel, petrol and LPG) consumption - Lease cars of employees</b>							
2019	2,829		423		240		
2020	1,653		244		101		
2021	1,336		199		84		
H1-2021	826		122		51		
Q1 CY21	413		61		26		
Start of restated data with the commencement of FY22							
Q2 CY21	413	218	-47%	61	35	-43%	
H2-2021	959	437	-14%	77	70	-10%	
Q3 CY21	255	218	-14%	39	35	-10%	
Q4 CY21	255	218	-14%	39	35	-10%	
[total not continued - replaced with financial year tracking] 2022							
Last audited Half-year in calendar terms	H1-2022	432	449	4%	65	75	15%
Data evenly attributed to quarters	Q1 CY22	216	218	1%	33	35	7%
Data evenly attributed to quarters	Q2 CY22	216	231	7%	33	40	23%
[NEW] Q3 CY22	n/a	n/a	n/a	n/a	n/a	n/a	
[NEW] Q4 CY22	n/a	233	n/a	30	n/a	29	
[total not continued - replaced with financial year tracking] 2023	n/a		n/a		n/a		
[NEW] Q1 CY23	n/a	229	n/a	30	n/a	34	

1) Lease cars of employees serving Group are now recorded separately as Group services rather than being geographically attributed to the nearest division. Reason is: their work facilitates the operation of all divisions, so the ecological burden of these should not be attributed to one division only.

Scope 2		Restated (Market-based)		Restated (Market-based)		Restated (Market-based)	
Electricity consumption - ON SITE		Delta	Delta	Delta	Delta	Delta	Delta
2019	25,693		40,788		16,287		
2020	21,431		35,944		13,343		
2021	21,254		34,904		13,659		
H1-2021	11,329		17,960		6,742		
Q1 CY21	5,665		8,980		3,371		
Start of restated data with the commencement of FY22							
Q2 CY21	5,665	540	8,980	7,222	3,371	1,645	
H2-2021	9,925	1,078	16,944	14,483	6,917	3,291	-52%
Q3 CY21	4,962	540	8,472	7,222	3,458	1,645	
Q4 CY21	4,962	540	8,472	7,222	3,458	1,645	
[total not continued - replaced with financial year tracking] 2022							
Last audited Half-year in calendar terms	H1-2022	7,617	540	-93%	17,587	14,250	-19%
Data evenly attributed to quarters	Q1 CY22	3,809	540	8,794	7,222	3,528	1,645
Data evenly attributed to quarters	Q2 CY22	3,809	0	8,794	7,038	3,528	885
[NEW] Q3 CY22	n/a	0	n/a	6,525	n/a	888	
[NEW] Q4 CY22	n/a	0	n/a	7,048	n/a	1,241	
[total not continued - replaced with financial year tracking] 2023	n/a		n/a		n/a		
[NEW] Q1 CY23	n/a	0	n/a	6,805	n/a	978	
<b>Electricity consumption - lease cars</b>							
2019	81		6		7		
2020	238		24		9		
2021	273		28		11		
H1-2021	119		12		4		
Q1 CY21	60		6		2		
Start of restated data with the commencement of FY22							
Q2 CY21	60	46	6	5	2	1	
H2-2021	154	92	-40%	16	11	-32%	-72%
Q3 CY21	77	46	8	5	3	1	
Q4 CY21	77	46	8	5	3	1	
[total not continued - replaced with financial year tracking] 2022							
Last audited Half-year in calendar terms	H1-2022	168	133	-21%	18	15	-17%
Data evenly attributed to quarters	Q1 CY22	84	46	9	5	3	1
Data evenly attributed to quarters	Q2 CY22	84	87	9	10	3	4
[NEW] Q3 CY22	n/a	90	n/a	9	n/a	4	
[NEW] Q4 CY22	n/a	115	n/a	11	n/a	5	
[total not continued - replaced with financial year tracking] 2023	n/a		n/a		n/a		
[NEW] Q1 CY23	n/a	86	n/a	7	n/a	3	

1) Given that all our green certificates have been recorded in CertIQ by Vattenfall we understand that they are relevant for the accounting as green electricity.

1) Lease cars of employees serving Group are now recorded separately as Group services rather than being geographically attributed to the nearest division. Reason is: their work facilitates the operation of all divisions, so the ecological burden of these should not be attributed to one division only.

Scope 3		Commuter Work - Miles		Commuter Work - Miles		Commuter Work - Miles	
2019	2,631		not known		not known		
2020	5,662		583		731		
2021	5,311		575		576		
H1-2021	2,655		287		288		
Q1 CY21	1,328		144		144		
Start of restated data with the commencement of FY22							
Q2 CY21	1,328	1,444	144	151	144	190	
H2-2021	2,655	2,889	9%	287	302	5%	288
Q3 CY21	1,328	1,444	144	151	144	190	
Q4 CY21	1,328	1,444	144	151	144	190	
[total not continued - replaced with financial year tracking] 2022							
Last audited Half-year in calendar terms	H1-2022	2,655	2,833	7%	287	322	12%
Data evenly attributed to quarters	Q1 CY22	1,328	1,444	144	151	144	190
Data evenly attributed to quarters	Q2 CY22	1,328	1,388	144	171	144	225
[NEW] Q3 CY22	n/a	1,388	n/a	171	n/a	225	
[NEW] Q4 CY22	n/a	1,388	n/a	171	n/a	225	
[total not continued - replaced with financial year tracking] 2023	n/a		n/a		n/a		
[NEW] Q1 CY23	n/a	1,388	n/a	171	n/a	225	
<b>Business Travels</b>							
2019	43		11		22		
2020	39		10		24		
2021	39		10		24		
H1-2021	20		5		12		
Q1 CY21	10		3		6		
Start of restated data with the commencement of FY22							
Q2 CY21	10	87	3	19	6	51	
H2-2021	20	173	788%	5	37	629%	102
Q3 CY21	10	87	3	19	6	51	
Q4 CY21	10	87	3	19	6	51	
[total not continued - replaced with financial year tracking] 2022							
Last audited Half-year in calendar terms	H1-2022	20	204	946%	5	45	779%
Data evenly attributed to quarters	Q1 CY22	10	87	3	19	6	51
Data evenly attributed to quarters	Q2 CY22	10	117	3	26	6	76
[NEW] Q3 CY22	n/a	117	n/a	26	n/a	76	
[NEW] Q4 CY22	n/a	117	n/a	26	n/a	76	

1) The commuting has been adjusted to also include the temporary workers  
2) We are expecting further improvement of data quality in FY24 as a result of improved internal staff reporting granularity

1) Spend based method was applied from the P&L - increased completeness vs the previous bottom-up method, although with a risk of double-counting.  
2) We are expecting further improvement of data quality in FY24 as a result of improved internal staff reporting granularity

[total not continued - replaced with financial year tracking]	2023	n/a			n/a			n/a	
[NEW]	11 LY23	n/a	117		n/a	26		n/a	76

<b>Total SCOPE 1 &amp; 2</b>	<b>2019</b>	189,552			269,815			23,396	
	<b>2020</b>	149,833			233,734			19,881	
	<b>2021</b>	167,271	0		218,344			20,668	
	<b>H1-2022</b>	75,887	86,824	10,937	100,923	95,749	-5,173	10,491	6,903 -3,588

<b>TOTAL BOUNDARY</b>										<b>Restated</b>
										482,763
										403,448
										406,283
										187,301 189,477

\*Reminder: the comparison between previous and restated figure is only orientational, for the reader's benefit; it is a subject to proportional attribution of volumes across broader and misaligned periods - and therefore not a 100% 'apples to apples' comparison.