Greenhouse Gas (GHG) emissions

Greenhouse gas (GHG) emissions[1]	2024	2023	2022[2]
Scope 1 GHG emissions, total (MT CO_2e)[3]	**4,888.41**	**4,820.89**	**5,713.24**
Scope 1 GHG emissions by source (MT CO_2e)[3]			
Natural Gas (Heating)	4,624.79	4,468.49	4,755.86
Gas (Company Fleet)	44.67	62.94	173.25
Diesel (Company Fleet)	31.28	118.03	96.32
Diesel (Generator)	100.36	4.52	8.70
Propane (Forklifts)	7.07	7.92	6.29
Carbon Dioxide	80.24	105.83	117.49
Welding Gas	0.01	0.16	0.01
Fugitive Emissions (Refrigerants)	-	53.00	555.33
Scope 2 GHG emissions, facilities (MT CO_2e)[4]			
Location-based	18,167.00	18,769.23	**16,967.91**
Market-based	12,914.55	14,120.67	**12,941.87**
Scope 1 & Scope 2 GHG emissions, total (MT CO_2e)[5]	**17,802.96**	**18,941.56**	**18,655.11**
Percentage decrease in GHG emissions (Scope 1 & Scope 2)	**5%**	**(2%)**	**0%**
Scope 3 GHG emissions, by source (MT CO_2e)[6]	**216,142.80**	**228,707.65**	**238,666.38**
Purchased Goods and Services[7]	165,517.75	183,372.69	196,233.00
Capital Assets [8]	7,152.71	7,055.18	4,737.00
Fuel and Energy Related Activities [9]	5,706.20	5,955.43	5,577.35
Upstream Transportation [10]	2,393.31	2,822.91	3,372.25
Waste Generated in Operations [11]	875.95	859.90	1,115.22
Business Travel [12]	117.60	147.74	109.78
Employee Commute [13]	3,150.43	3,839.79	3,447.70
Downstream Transportation [10]	9,582.80	6,612.16	5,962.73
Processing of Sold Products [14]	143.73	161.53	168.43
Use of Sold Products [15]	4.57	5.01	-
End-of-Life Treatment of Sold Products [16]	21,497.76	17,875.29	17,942.92
Percentage decrease in Scope 3 GHG emissions	**9%**	**4%**	**0%**

[1] Includes site specific data from the following Tessy operational facilities:
A: Tessy New York, USA facilities: 3 in Elbridge Campus (East, West, and South), 1 in Skaneateles, 2 in Auburn (Auburn and Sennett), 1 in Baldwinsville and 3 in Webster. The Sennett facility closed toward the end of 2024.
B: Tessy's Subsidiaries: Tessy Automation and Tessy Tooling in Pennsylvania, USA and Tessy Shanghai, China.

[2] Webster Facility came under Tessy operational control in late 2022. Webster's 2023 data was extrapolated for 2022, such that 2022 data reflected all the facilities as a baseline for emission reduction.

[3] Scope 1 Metrics for Tessy New York facilities has been assured by third-party, except for emissions related to refrigerants.

[4] Includes emissions from purchased electricity using Location-based methodology applying the emission factors from EPA's eGRID publication for specific regions for US-based locations and Statista emission factors for Tessy Shanghai. Market-based emissions takes into account vPPA and low-carbon energy credits. Scope 2 emissions for Tessy New York and Tessy Shanghai facilties have been third-party assured for reporting years 2023 and 2024.

[5] Includes Scope 1 emissions and Scope 2 Market-based emissions.

[6] Includes Emissions from the Upstream Leased Assets, Downstream Leased Assets, Franchises, and Investments are not relevant to Tessy.

[7] Emissions were calculated using a combination of input material activity data and spend data. Activity-based data on key raw materials was multiplied with emission factors from Ecoinvent LCA dataset. Spend data was categorized into spend categories compatible with the US EPA's Supply Chain Greenhouse Gas Emissions Factors dataset.

[8] For each relevant expenditure category an appropriate emission factor from the US EPA's Supply Chain Greenhouse Gas Emission Factors was applied.

[9] Includes emissions from fuel-and-energy related activites such as extraction, production, and transportation of fuels in Scope 1 and energy in Scope 2 as well as T&D losses. Emission factors from UK DEFRA for Scope 1 and International Energy Agency (IEA) for Scope 2 was used.

[10] Emissions from upstream and downstream emissions includes a combination of distance, weight, and spend data. Appropriate emissions factors were used from US EPA Emission Factors Hub for tank-to-wheel (TTW) and from UK Government Conversion Factors for GHG reporting for well-to-tank (WTT).

[11] Emissions from Waste Generated in Operations were calculated for both hazardous and non-hazardous waste from manufacturing using emission factors from US EPA Emission Factors Hub.

[12] Business travel emissions include emissions from flights and car rental using emission factors from US EPA Emission Factor Hub and UK DEFRA Emission Factors. Emissions from hotel stays are not included, in alignment with GHG Protocol required emissions for this category (optional emission sources have been excluded).

[13] Includes Emissions from Employee Commuting were calculated using distance data and type of vehicle provided by employees through a survey. The distance was extrapolated to 100% when the survey completion rate was below 100%. The calculation includes both well-to-tank and tank-to-wheel emissions associated with employee commuting.

[14] Emissions from Processing of Sold Products includes emissions from energy required to fill certain packaging products.

[15] Includes emission from energy used by certain devices.

[16] Includes emissions associated with waste disposal and treatment of products sold by Tessy (in the reporting year) at the end of their life.