



Sustainability at Seagate

Seagate is committed to sustainable storage. Our engineering focus is on increasing storage capacity and utilization, while controlling the quantity and types of materials we use and improving energy efficiency and recyclability.

Sustainable design features

- Up to 30% lower power consumption and 70% improved cooling efficiency compared to previous generations.
- High-density storage enclosures maximize space utilization, reducing material usage.
- Base plate manufactured using 90% post-consumer recycled aluminum

Energy and greenhouse gases

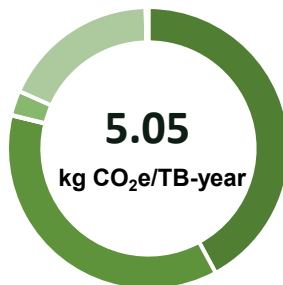
Manufacturing and using our products requires energy and produces greenhouse gas (GHG) emissions. We assess life cycle energy and GHG impacts and work towards improving energy and GHG efficiency and reducing ownership costs with each new generation of our products. Since 2022, our manufacturing facilities have operated using 100% renewable energy.

Power consumption	Per unit	Per TB
Average idle power (W)	1,560	0.61
Operating (W)	1,750	0.69
Average annual (kWh)	12,943	5.09

Greenhouse gas emissions by life cycle stage

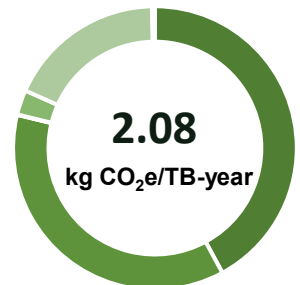
Use phase — conventional energy

17.4%	■	Bill of materials
15.1%	■	Manufacturing
0.0%	■	Packaging
1.2%	■	Distribution
66.3%	■	Use phase
0.1%	■	End of life



Use phase — renewable energy

42.2%	■	Bill of materials
36.8%	■	Manufacturing
0.0%	■	Packaging
2.8%	■	Distribution
18.1%	■	Use phase
0.3%	■	End of life



*Results shown in this report are for the Exos data storage system including 74 Exos X24, Summit 24TB HDDs configured with the system

Scarce Resources

We aim to reduce our use of scarce resources during the life cycle of our products. We assess the water and mineral resource depletion impacts of our products in order to minimize dependence on key natural resources and reduce manufacturing and product ownership costs.

Water consumption by life cycle stage

Use phase — conventional energy

11.5%	■	Bill of materials
30.7%	■	Manufacturing
0.1%	■	Packaging
0.1%	■	Distribution
57.7%	■	Use phase
0.0%	■	End of life

Use phase — renewable energy

24.7%	■	Bill of materials
65.7%	■	Manufacturing
0.1%	■	Packaging
0.2%	■	Distribution
9.2%	■	Use phase
0.0%	■	End of life

Mineral resource scarcity by life cycle stage

Use phase — conventional energy

94.8%	■	Bill of materials
0.1%	■	Manufacturing
0.1%	■	Packaging
0.0%	■	Distribution
5.0%	■	Use phase
0.0%	■	End of life

Use phase — renewable energy

99.8%	■	Bill of materials
0.1%	■	Manufacturing
0.1%	■	Packaging
0.0%	■	Distribution
0.0%	■	Use phase
0.0%	■	End of life

Safer materials

As a leading supplier to major original equipment manufacturers, Seagate helps to establish standards for direct materials — components that make up our products — to meet customers' strictest specifications. We are meticulous about cataloging restricted substances; currently we list more than 2,000.

Human toxicity* by life cycle stage

Use phase — conventional energy

100.0%	■	Bill of materials
0.0%	■	Manufacturing
0.0%	■	Packaging
0.0%	■	Distribution
0.0%	■	Use phase
0.0%	■	End of life

Use phase — renewable energy

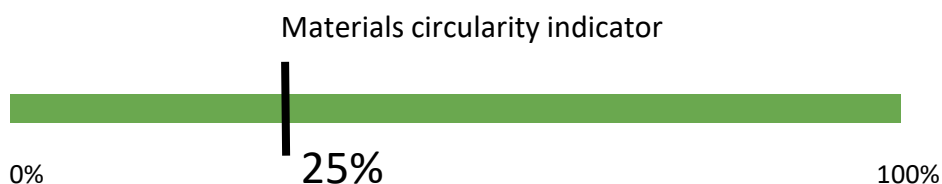
100.0%	■	Bill of materials
0.0%	■	Manufacturing
0.0%	■	Packaging
0.0%	■	Distribution
0.0%	■	Use phase
0.0%	■	End of life

*Human toxicity results are reported as total kg 1,4-DCB-eq. by combining the carcinogenic and non-carcinogenic midpoint indicators. These categories are calculated independently using ReCiPe impact assessment method and disaggregated results are available upon request. Results are driven primarily by non-carcinogenic human toxicity.

Materials efficiency and circularity

Seagate recognizes the traditional “take, make, dispose” linear approach to business is unsustainable. We measure our progress towards a circular economy with a variety of indicators including material used per TB of storage, use of recycled content, reuse rates and recycling type and efficiency.

Device weight — shipped (g)		Per unit	Per TB
Drive	Enclosure	103,459	41
	Media	27,509	11
	Electronics	3,189	1
Packaging	Cardboard and paper	660	1
	Other materials	228	1
Total		135,046	53



Key circularity parameters	Per unit
Estimated operating life	Five years
Recycled aluminum in base plate	90%
Recycled aluminum in other parts	World average
Recycled steel content	World average
Recycled cardboard	100%
Reused content	Zero
Recycling rate	25%
Residual disposal	100% landfill
Reuse rate	Zero
Recycling efficiency	95%
Recycling collections efficiency	90%

Seagate measures and reports its product sustainability performance on a TB-year basis. Seagate's drives come in different storage sizes and have different estimated useful lives. When referring to drive capacity, one terabyte, or TB, equals one trillion bytes. The TB-year measure combines these factors so that sustainability performance data is comparable across products and that annual impacts are directly reported. Seagate uses the Ecoinvent 3.10 Life Cycle Inventory database.