

Carbon Footprint of Digital Activities - Reference Table

Compiled and curated for academic and public reference use.

Activity	Typical Value	Source Website(s)
Google Search	0.2g	https://www.bbc.com/news/technology-49899660
		https://www.wired.com/2009/01/google-search-emissions/
		https://sustainability.google/reports/
ChatGPT Query (GPT-3/4)	2-10g	https://www.technologyreview.com/2019/06/06/239031/training-a-single-ai-model-can-emit-as-much-carbon-as-five-cars-in-their-lifetimes/
		https://openai.com/research
Instagram Reel (1 min, HD)	0.9g	https://theshiftproject.org/en/article/lean-ict-our-new-report/
		https://www.carbontrust.com/resources/cutting-the-carbon-impact-of-streaming
YouTube HD (1 hr)	55g	https://www.iea.org/reports/data-centres-and-data-transmission-networks
		https://theshiftproject.org/en/article/lean-ict-our-new-report/
Email (text)	0.03g	https://www.howbadarebananas.com/
		https://www.bbc.com/future/article/20200305-why-does-emitting-carbon-cost-money
Email (w/ photo/attach)	10-50g	https://www.howbadarebananas.com/
		https://www.bbc.com/future/article/20200305-why-does-emitting-carbon-cost-money
Video Call (1 hr/pp)	55-100g	https://www.iea.org/reports/data-centres-and-data-transmission-networks
		https://www.carbontrust.com/resources/cutting-the-carbon-impact-of-streaming
SMS/Push Notification	0.01-0.02g	https://www.bbc.com/future/article/20200305-why-does-emitting-carbon-cost-money
		https://theshiftproject.org/en/article/lean-ict-our-new-report/
1GB Data Transfer	55g	https://www.iea.org/reports/data-centres-and-data-transmission-networks
		https://theshiftproject.org/en/article/lean-ict-our-new-report/