

Energy Footprint Key

It is important to note that the numbers used in these matching games are from a variety of sources which use different methods to estimate water and energy footprint. Water and energy footprints vary greatly based on factors such as geographical location and production method. It is better to think of these figures as ballpark estimates.

There is also an [online matching game](#) available if you prefer not to print cards.

- All ChatGPT for One Year (Worldwide) = 621 million Wh
 - Source: <https://www.rwdigital.ca/blog/how-much-energy-do-google-search-and-chatgpt-use>
- Canadian Home for One Year = 11.1 million Wh
 - Source: <https://www.bluetippower.ca/blogs/home-backup/how-many-kwh-does-the-average-canadian-home-use>
(adapted from the 3000 BTU AC Unit, then rounded)
- Charging an EV for One Day = 11,200 Wh
 - Source: <https://www.gencellenergy.com/resources/blog/ev-charging-power-car-electricity-usage/>
- Window AC Unit for 12 Hours = 10,500 Wh
 - Source: <https://ca.jackery.com/blogs/news/how-many-watts-does-a-window-ac-use>
- Fridge + Freezer for One Day = 4,800 Wh
 - Source: <https://ca.jackery.com/blogs/news/how-many-watts-refrigerator-use?s>
- Streaming a Movie = 1,200 Wh
 - Source: <https://theflint.media/exactly-how-much-energy-does-streaming-use-the-datas-starting-to-come-in/>
(600 Wh for 1 hr - 1200 Wh for 2 hr movie)
- 1000 AI Text Summaries = 49 Wh
 - Source: <https://arxiv.org/pdf/2311.16863>
- Charging Your Phone Once = 22 Wh
 - Source: <https://arxiv.org/pdf/2311.16863>
- One AI-Generated Image = 2.9 Wh
 - Source: <https://arxiv.org/pdf/2311.16863> (Table 2, Mean of "Image generation")
 - Avg smartphone requires 22 Wh of energy, which means least efficient image generation model uses as much energy as 522 smartphone charges, or around half a charge per 1000 images generated.
- One Modern Google Search (with AI summary) = 0.65 Wh
 - Source: <https://www.linkedin.com/pulse/chatgpt-vs-google-search-who-uses-more-energy-answer-might-langley-2omuc/>
- Typical ChatGPT Text Response = 0.5 Wh
 - Source: <https://www.linkedin.com/pulse/chatgpt-vs-google-search-who-uses-more-energy-answer-might-langley-2omuc/>
- One Google Search (No AI) = 0.3 Wh
 - Source: <https://store.chipkin.com/articles/did-you-know-it-takes-00003-kwh-per-google-search-and-more>