

Coal and the Internet

Your typical PC and its peripherals (printers, scanners, modems, etc.) accessing the Internet require about 1,000 watts of power; a lump of coal is burned every time a book is ordered on-line. It takes about one pound of coal to create, package, store and move 2 megabytes of data.

Computer Devices	Electric Use
Integrated Circuit	90 watts
PC's & Attachments	1,000 watts
Routers	500 -1,500 watts
Servers	1,000 - 2,000 watts

To Build: It takes 9 kilowatt-hours per square inch to make an integrated circuit. The amount of electricity used to make a simple PC is about 1,500 kWh. The average home user is online 12 hours/week and consumes 1,000 kWh per year to access the Internet. It takes kilowatt-hours to transport digital computer bits around the Internet just as it takes gasoline to transport you around town.

Electric Demand from PC's on the Internet: The total electrical demand from PC's on the Internet today equals 8% of the U.S. electric supply.

Growth of the Internet: Intel projects a billion people on-line worldwide in the future. One billion PC's on the web represents and electric demand equal to the total capacity of the U.S. today. As technology continues to develop broad bandwidth (i.e. video) use will increase and as one new means of transport, data may be transported along the outside of your existing electric wires (i.e. in the electromagnetic field) to deliver expanded Internet services to your home.