IT Equipment

IT equipment includes all desktop computers and monitors, laptops, tablets, copiers, multifunctional devices, printers and fax machines, which are standard issue for almost all government employees and are used both in offices and in the field. Government and institutional buyers spend billions of dollars on electronic equipment each year.

What are the key green issues?

» **Energy Consumption:** Computers and other office electronics consume 74 billion kWh of electricity per year, equivalent to the annual electricity consumption of 7 million households. A typical desktop PC, with display, consumes about 150 watts, 10 times more than a laptop, and has limited power management features.

» **Durability and Resource Use:** The organizational lifespan of a computer is about three years; users often feel it is easier to buy new equipment than to upgrade the products they have. Production and use of an ever-increasing number of electronic products is resource-intensive, accounting for significant extraction of natural resources and major energy consumption.

» **Air Quality and Human Health:** Components of computers that contain ozone, volatile organic compounds, formaldehyde, and flame retardants can "off-gas" and impact air quality and human health.

» **Waste and End of Life Management:** When computers and other electronics are disposed, the resulting waste stream contains toxic materials such as lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBBs), and polybrominated diphenyl ethers (PBDEs).

Myth Buster

People still believe that greener computers are more expensive. But in reality, they carry no price premium compared to conventional models while saving up to 60 percent in energy costs.

How does green IT equipment advance Government's strategic priorities?

☑ Reducing Energy Consumption

Green computers that are ENERGY STAR rated are equipped with energy saving features that can reduce energy use by 40 percent to 65 percent. According to the EPA, if all office users in the US employed ENERGY STAR 5.0 power management features, the potential carbon dioxide reductions would be the equivalent of taking 3 million cars off the road and the potential energy cost savings would be $2 billion. Buying laptops instead of desktop computers will reduce the energy used by up to 90 percent. Saving energy also means your equipment will run cooler, which can make it last longer and adds less unwanted heat to your office.

☑ Reducing Resource Consumption

Buying green computers from manufacturers who recycle or reuse components reduces the demand for virgin natural resources. Buying durable and upgradable computers increases their lifespan, reducing the frequency of replacement. According to the US Environmental Protection Agency (EPA), refurbishing a used computer is 25 times greener than recycling.

☑ Reducing Unnecessary Waste

Re-sale or redeployment of computers through surplus sales recycling programs will divert computers from landfills. Since 2013, The Electronic Products Recycling Association (EPRA) is operating a recycling program for end-of-life electronics, including computers and monitors in Newfoundland and Labrador that aims at helping to achieve a 50 percent goal of waste reduction in the province. Take back guarantees from suppliers for packaging materials will help reduce government waste. Many printing devices, including inkjet printers, fax machines and photocopiers have cartridges that are refillable and most are recyclable.

Recommended	Why is it important?	How do I know I am getting it?
☑ IT equipment has at least EPEAT (Electronic Product Environmental Assessment Tool) silver level certification	The EPEAT system combines strict, comprehensive criteria for design, production, energy use and recycling with ongoing independent verification of manufacturer claims and thus contributes to continually reducing the negative environmental impacts of electronics.	EPEAT silver level rated products give you assurance, as a minimum, about a series of attributes, including compliance with the European RoHS directive (Restriction of Hazardous Substances) and with ENERGY STAR, reporting on the amount of mercury used in light sources, elimination of intentionally added flame retardants and plasticizers in certain applications, percentage of postconsumer recycled plastic content, of renewable/bio-based plastic materials content, provision of product take-back service, and of rechargeable battery take-back service, reduction/elimination of intentionally added toxics in packaging, percentage of recycled content in packaging, availability of additional three year warranty or service agreement.
☑ Buy laptops instead of desktop computers	The potential energy savings from substituting PCs with portable laptops are large, up to 90 percent or more.	The ENERGY STAR® symbol identifies the most energy efficient models.
☑ Take back guarantee of packaging	Ensuring that suppliers take back packaging materials upon delivery will reduce government waste.	Ask your supplier for a take back guarantee of packaging materials, such as cardboard and polystyrene.

What else could I look for?

In addition to the minimum recommended criteria outlined above, there are stronger green attributes you can look for when making your purchasing decision.

Recommended	Why is it important?	How do I know I am getting it?
Green Delivery Strategies	Consolidating product delivery schedules to reduce transportation, using proper route planning, avoiding idling of vehicles during product delivery and using re-usable blankets to protect items during shipping will all contribute to provincial commitments to minimize greenhouse gas emissions and solid waste production.	Engage the vendor on green delivery strategies and ask for a declaration of commitment.
Buy EPEAT Gold level certified computers, laptops and displays	After achieving a substantive penetration rate of EPEAT Silver level certified IT equipment, consider progressing to gold level, the highest achievable level of certification.	

Resources

- Responsible Purchasing Network (RPN)
- RPN Purchasing Guide Computers
- BC Hydro Powersmart
- US Environmental Protection Agency (EPA)
- Multi Materials Stewardship Board (MMSB)