



The Business Case for Energy-Efficient IT

How energy-efficient technology can improve your bottom line

Choosing energy-efficient technology is more than responsible citizenship—it also brings cost savings to organizations of all sizes. The latest client and server Intel® technologies can significantly reduce power consumption, while providing a broad range of performance and IT advantages.

Here you will find ways energy-efficient IT can help you achieve cost-effective operations.

“The costs and energy savings are a no-brainer. How often do you get to cut costs and do something better?”

Scott Gnau, Chief Development Officer, Teradata Corporation



- 1. The opportunity:** Recent advances in energy-efficient technology, innovations in energy consumption management, and utility company incentive and rebate programs have created a great opportunity for capturing energy and cost savings.
- 2. The bottom line:** Intel® technology-based servers, desktops, laptops, and power management all deliver significant cost savings over older equipment by reducing energy consumption. These cost savings can be used to offset the expenditure of an upgrade.

Organizations that have retained older equipment are missing opportunities to save money and improve ROI. In fact, the reductions in power consumption from today's Intel® processors are so great that you may not want to wait until equipment end-of-life to refresh.

- 3. The utility incentives:** Utility companies throughout North America are supporting IT energy-efficiency programs of all types. Many offer incentives and rebates for purchasing energy-efficient desktops, laptops, and servers, as well as power management technologies.

Contact your local or regional utility company to find out about their incentive and rebate programs. They can also tell you how to get started on their particular application process.

- 4. The technology:** Intel is delivering new levels of energy efficiency in all of its products to reduce energy costs, environmental impact, and load on power generation and distribution facilities.

CHOOSE ENERGY-EFFICIENT IT

Energy efficiency is key to responsible citizenship for today's organizations. It also helps you achieve better ROI, lower operational expenditures, and improve manageability and performance. Make energy-efficient technology a priority when upgrading your IT infrastructure.



ENERGY-EFFICIENT IT QUICK REFERENCE GUIDE

Improve your ROI

- Replace older systems—especially 3 years or older
- Specify ENERGY STAR* desktops and monitors
- Install PC network power management hardware or software
- Combine high performance servers with server virtualization and consolidation
- Promote a move to mobile PCs
- Many U.S. utility companies offer rebates and incentives

Maximize cost savings

- Desktop refresh: Replacing a 3- to 6-year-old desktop can reduce energy use from 700 to 252 kWh, yielding up to 64% annual savings per PC¹
- Add power management: With power management, annual desktop energy use goes from 700 kWh to just 83 kWh, bringing annual cost savings up to 88% per PC¹
- Move to mobile: With mobile refresh of a 3- to 6-year-old desktop, energy use goes from 700 kWh to just 51 kWh, bringing annual cost savings up to 93% per laptop¹
- Server refresh: Impact your cost structure by reducing energy consumption, freeing up space, alleviating power supply and quality concerns, and improving existing cooling capacity

Take advantage of utility company incentives and rebates

- ENERGY STAR* PCs, monitors, and servers
- PC power management hardware and software, including activation of Intel® vPro™ technology
- Intel vPro technology-enabled automated PC shutdown
- Replacement of desktop computing with mobile platforms
- Server refresh, virtualization, and consolidation
- Data center refresh and cooling-efficiency projects
- Consistent, shortened refresh cycles
- Bonus rebates for early retirement of IT equipment

Choose energy-efficient technology

- Intel® Xeon® processors automatically and intelligently balance performance and power consumption. This enables servers to adapt in real time to application workloads and user demands, delivering optimal performance and energy efficiency.
- Intel® Core™ processors operate at very low voltages and use power more efficiently, so less unnecessary heat is generated and less cooling is required for these high performance systems. These processors help PCs meet ENERGY STAR* requirements. Laptop PCs based on Intel Core processors enable organizations to gain significant power savings by switching users from desktop to laptop PCs. These savings can be substantial, helping to offset the additional cost of acquiring laptop PCs.
- Intel® vPro™ technology is included in most higher-end commercial PCs based on Intel® architecture, and allows more reliable and efficient power management of PCs

CONSOLIDATION SCENARIO

A business could perform a 5:1 consolidation—replacing five 2-socket rack servers based on an older Intel® Xeon® processor (3.8 GHz) with one rack server based on the Intel® Xeon® processor 5600 series—and see up to 85% annual reduction in energy costs and payback in as few as 15 months, while still meeting the same business computing demands.²

Talk to your solution provider about an energy-efficient upgrade for your organization. Learn more about utility incentive programs, and access free server and PC calculators at: <http://premierit.intel.com/energy>

Contact your local utility and find out about their particular incentive and rebate programs.

1. Desktop power calculations exclude monitor power consumption. Power consumption figures are based on configurations representative of mainstream business PCs for a given model year. Systems with no power management are assumed to remain in idle 24/7. kWh for PCs with power management is based on EPA ENERGY STAR* 5.0 model. Source: Intel.

2. Intel measurements as of February 2010. Performance comparison using server-side Java* bops (business operations per second). Results have been estimated based on internal Intel analysis and are provided for informational purposes only. Any difference in system hardware or software design or configuration may affect actual performance.

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