HP Green Business Technology initiative

Better business outcomes equal better environmental outcomes

Overview
- Reduce costs, manage risk, and support business growth while reducing environmental impact
- Achieve carbon reduction goals and meet your environmental compliance requirements
- Increase energy efficiency, dematerialize processes, and better manage technology assets

The need to align technology, environment, and business goals

Technology no longer supports your business; it powers your business. Money saved in operating costs goes straight to the bottom line. Resource and energy efficiency helps control and reduce your costs, stay on top of governmental guidelines and carbon reduction commitments, and plan for sustainable growth.

Using the right technology in the right areas of your business allows you to reduce waste and institute energy efficiencies that quickly translate to growth in your customer base, increased market share, and enhanced shareholder value. With increasing pressures to become more environmentally responsible, failure to focus on environmental goals can have many negative repercussions. Often, there are fees for non-compliance, with laws associated with disposal of e-waste and emerging legislation to reduce carbon emissions. Further, organizations viewed as not committed to driving environmental improvements may see their brand suffer.

These factors have imposed a sense of immediacy on your enterprise to adopt solutions that can deliver both business and environmental benefits quickly and simultaneously.

Enable outcomes that are good for your business and customers

Building on decades of innovation and leadership in enterprise technology, we have assembled the most comprehensive technology portfolio to enable technology organizations to lead business growth, reduce costs, and manage risks—while reducing environmental impact at the same time. HP delivers value and supports your goals on three fronts:

Sustainable design and management of assets
The technology devices your employees use to communicate and run your business can be steady contributors to your corporation's energy consumption. It is imperative to employ technology assets that drive greater efficiencies while impacting the environment less. We incorporate recycled materials in the manufacture of our products, design them to be energy-efficient during use, and make sure that the products can be easily retired—passing along significant energy savings and environmental efficiencies to you. In addition to these benefits, incorporating sustainable assets into your operations may also provide enhanced business opportunity in the near future with the emergence of new government procurement incentives and requirements.
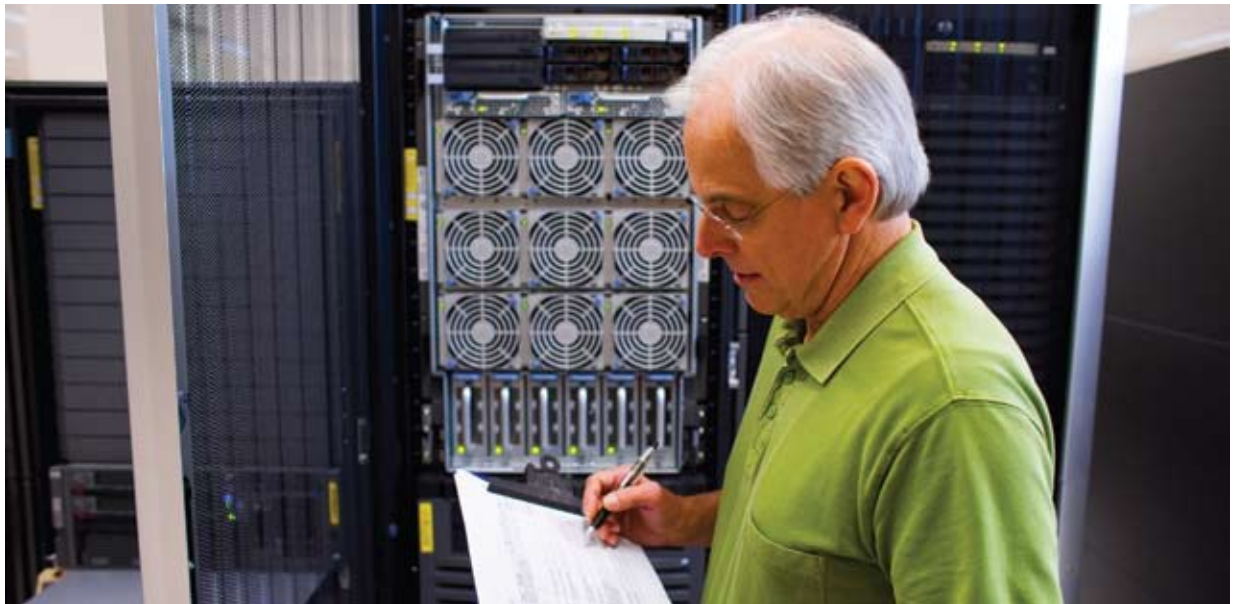
Some examples include:

• HP ProLiant and Blade servers, which help consolidate to reduce server footprint cutting greenhouse gas emissions, materials, cost, and energy consumption. HP ProLiant G6 includes many energy-saving features, such as:

  – HP Sea of Sensors, which automatically tracks thermal activity across the server through a collection of 32 smart sensors. The sensors dynamically adjust system components such as fans, memory, and input/output processing to optimize system cooling and increase efficiency.

  – Common Power Slot design, which helps reduce power waste by allowing customers to choose from four power supplies to match their specific workload. Customers can achieve more than 92 percent energy efficiency in the majority of real-world configurations.[1]

• HP Asset Recovery Services, which obtain the highest return on your older technology by helping you derive any remaining value from unwanted equipment, while maintaining the highest standard of data security.

• HP StorageWorks 4400/6400/8400 EVAs, which enable you to achieve up to 24 percent performance improvement and improve capacity utilization by more than 50 percent, with Dynamic Capacity Manager and automated provisioning.

• HP Thin Clients, which provide an alternative "lower power device" for reduced maintenance costs, minimal application updates, and a higher level of security than other desk-based products can offer.

• HP modular switches, which enable up to 45 percent cost savings and HP fixed-port switches enable up to 38 percent savings compared to industry averages.[2]

• ProCurve Manager Plus (PCM+) management software, which helps you remotely schedule shutdown of idle PoE devices such as VoIP phones during the off hours—saving up to 73 percent in energy costs.[3]

[1] Energy efficiency based on HP testing

[2] Source: Miercom

[3] Source: http://www.procurve.com/green/energy-savings.htm#1

• HP PCs with ENERGY STAR 5.0-compliant hardware, which can reduce the total system power use by more than half.[4]

Energy-efficient infrastructure

Energy expended from information technology throughout your organization represents significant opportunity to operate more efficiently, reduce carbon, and save costs. So, it is imperative that the infrastructure in which your products operate is energy-efficient. We deliver value in three areas that help make this happen. The first is Energy Efficient Data Center Design services, which help you drive the greatest energy efficiency possible, by designing or retrofitting your data center to enable low PUE/high DCiE results. Our multi-tiered hybrid designs reflect the different infrastructure and availability requirements of businesses to reduce energy use and capital costs. The second area is power management software. By utilizing embedded technology such as Thermal Logic in your server products, you can "cap" the amount of power allocated to an enclosure, enabling dynamic power provisioning to servers as and when the business requires capacity. Also, HP solutions can help you manage your power more effectively to prevent outages and regulate resource allocation, based on IT workload needs and uptime objectives. The third area involves employing next generation, energy-efficient data centers from HP, using the shared infrastructure option with IT outsourcing.

Examples of energy-efficient infrastructure include:

• HP Thermal Zone Mapping, which helps you see a three-dimensional model of exactly how much and where data center air conditioners are cooling, so that you can arrange and manage air conditioning for optimal cooling, increased energy efficiency, and lowered costs.

• HP Critical Facilities Services, which offer a range of expert, customizable assessment and site planning services to help you evaluate your environment and develop more effective and efficient power and cooling strategies for better utilization. HP designs data centers to meet international standards and often we are part of authoring those standards. For example, HP consultants will design a data center to meet the Leadership in Energy and Environmental Design (LEED) Green Building Rating System, developed by the U.S. Green Building Council (USGBC), which provides a suite of standards for environmentally sustainable construction. We also use BRE Environmental Assessment Method (BREEAM), which is a widely used environmental assessment method for buildings.

• HP Virtualization, which helps combine the workloads of several underutilized servers on to a single server that is utilized more fully—reducing power footprint with fewer servers needed to do the same amount of work.

• HP Lights-Out remote management, which delivers total remote control with an energy-efficient management software that delivers centralized control, reliable security, and energy savings for HP ProLiant and HP BladeSystem infrastructure.

[4] Source: Internal testing; customer results will vary. Variables include customer-determined percentage of sleep state, idle state, productivity state, and peak usage state. Also, manufacturing variability will affect the savings a customer may see. HP advises customers to test a system with an 80 percent efficient power supply in their environment to determine potential savings.

> "It is important that technology strengthens an organization's environmental credentials. By simply implementing the recommendations from HP's Data Center Thermal Assessment, we have reduced our carbon footprint by lowering energy costs by between 10 and 15 percent."
>
> Gerhard Gois, Operations and Infrastructure IT Manager, SPAR-Austria

- HP Web Jetadmin software, which allows you to set device sleep and wake modes—an option that can be used to turn off imaging and printing devices outside of business hours. This can help lower energy costs associated with office equipment by up to 66 percent.[5]

- Carbon impact assessment service, part of a comprehensive green management suite—Carbon Emissions Management Service (CEMS), from EDS, an HP company, which helps calculate energy consumption and greenhouse gas emissions emanating from the use of information technology.

Transformed business processes
In addition to assets and infrastructure, technology now also offers the opportunity to make significant strides in energy efficiency and cost savings across key business processes. Operations that drive the business can be re-designed and streamlined to enable you to remove materials, reduce costs and waste, and improve efficiencies in areas of your business that offer the greatest shareholder value.

We transform your business processes with solutions such as:

- HP Halo and HP SkyRoom virtual meetings, which help reduce airfare expenditure and greenhouse gas emissions associated with business travel by bringing people from across the globe into an environment that looks, sounds, and feels as if they are just across the table.

- HP Output Management Solutions, which capture and deliver documents digitally to speed document-based workflows, virtually removing the need for faxing and paper use—while also enabling reliable, time-critical document delivery.

- HP Retail Marketing Automation solutions, which offer a flexible and cost-effective collaboration application that speeds creative execution, lowers costs, and helps you produce compelling promotional material. With this solution, your organization can reduce labor costs by automating processes and decrease waste with customized material. You can also reduce shipping with on-demand printing of material.

[5] Source: http://www1.eere.energy.gov/buildings/commercial/printable_versions/appliances.html

> "HP brings ideas and solutions to Standard Register, like this server consolidation project, that yield both expected and unexpected benefits—in this case, the significant process improvements and cost savings we knew we'd achieve, as well as reductions in our data center power consumption— something we didn't anticipate but which made a significant impact on our budget and operations."
> Joanne Cummins, Chief Information Officer, Standard Register

Why HP is poised to help you create the desired impact

Building on years of experience in collaborating with organizations to provide energy efficiency and carbon reduction solutions, HP can deliver rapid business value by driving better environmental outcomes. The financial and business benefits of the HP business technology portfolio and associated environmental value allow you to:
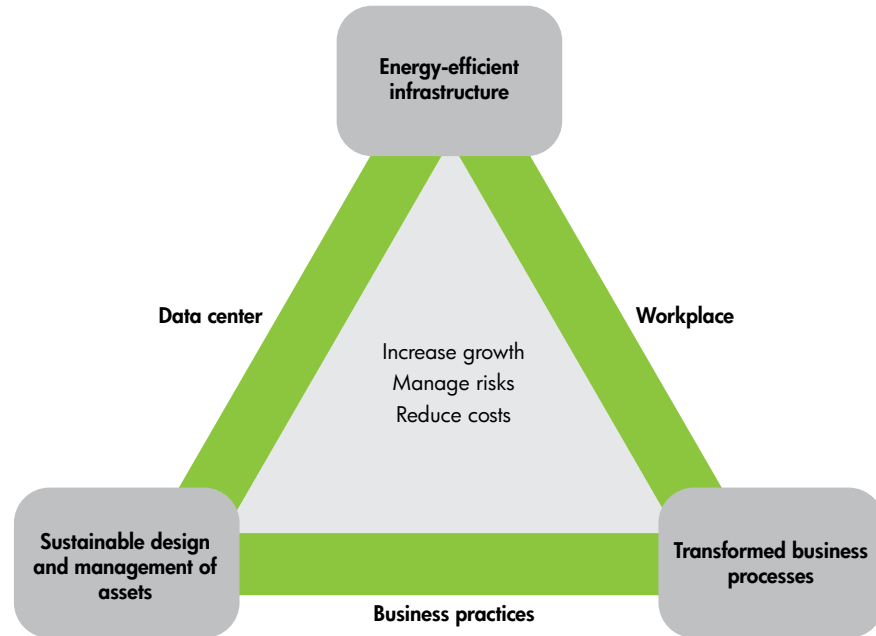
- Extend the capacity and life of your data center and/or design next-generation data centers

- Increase business continuity

- Achieve sustainable growth in business services and end-user computing as your employee base grows

- Increase energy efficiency from "chip to chiller" and beyond

- Strengthen IT's contribution to your organization's environmental goals and overall brand

- Better measure, manage, and reduce your carbon footprint to meet corporate commitments

- Reduce material resource consumption

- Support your compliance with current and anticipated e-waste and carbon regulations

With environmental benefits embedded throughout the HP Business Technology portfolio, we help you get to the bottom-line quickly, reducing energy costs. Also, we will help you better understand investment costs and analyze associated returns, so that you can readily assess the payback.

Environmental leadership through innovation

- HP launched the company-wide "Design for the Environment" program back in 1992. As a result, HP labs and engineering received over 1,000 patents for power and cooling innovations.

- Through HP Sustainable IT Research Labs, HP makes significant investments in technology and business model research to improve customer implementations and technology investments.

- HP consolidated more than 85 data centers worldwide into just six locations by the end of 2008. Through the consolidation, we realized a near 60 percent reduction in annual energy consumption, 65 percent reduction in energy costs, and a reduction of CO_2 emissions that equals 350 square miles of forest-storing carbon for one year. These reductions come from:

    – Modern, energy-efficient power and cooling and improved air management, using technology such as Thermal Zone Mapping

    – Advances in technology that optimize DC power and provide "as needed" dynamic cooling

    – About 200,000 fewer square feet of "white space"

    – Deployment of new, energy-efficient servers, storage, and networking

    – Server virtualization

Figure 1: The HP approach to Green Business Technology

Awards[6]

• Secured the number-two spot of "Top Green-IT Vendors" named by Computerworld in April 2009

• Titled "China Green Benchmark Company" for the second consecutive year in April 2008

• Received a 2008 Uptime Institute Green Enterprise IT Award for pioneering energy-efficiency improvements in its data center operations

• Earned top environmental rating for its entire personal workstation line, being the first in the category to achieve a "Gold" listing in the Electronic Products Environmental Assessment Tool (EPEAT™) in April 2008

• Awarded the highest score of 68 points by Climate Counts in April 2008—for measuring and reducing its companywide impact on global warming annually, fostering awareness to address global warming, and supporting public policy that addresses climate change

• Made it to the Global 100 Most Sustainable Corporations in the World list, for positive impact on society and the environment, published by Corporate Knights and Innovest in January 2009

Global Citizenship

As the world responds to unprecedented economic and environmental challenges, our intent at HP is to continue delivering on core commitments and priorities. One of those priorities is Global Citizenship, which is rooted in the founding values that have kept this company true to its focus through volatile times.

On a more practical level, Global Citizenship pushes us to do more with less and help you do the same. It offers strategic advantages to your business with defined policies, programs, and practices. In addition, the initiative tightens standards in our supply chain to protect you from risks from unethical suppliers and improve consistency.

Get started

Contact an HP customer service representative to schedule an energy assessment as a first step to adopting Green Business Technology initiatives with the confidence that you will have the best in the business to help you achieve your environmental goals and also simultaneously realize far-reaching business benefits. To know more, visit:
www.hp.com/go/greencomputing

[6] Source:
http://www.hp.com/hpinfo/globalcitizenship/awards-category2008.html

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Technology for better business outcomes

To learn more, visit www.hp.com/go/greencomputing

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