

Goin' Green

Increasing DoD's Environment-Friendly Practices

Carol Scheina

As Kermit the Frog famously noted, "It's not easy bein' green." Especially in the world of the Department of Defense.

After all, look at what DoD has to take into account in order to keep its defense tools and systems operational and up to date: Cost, risks, planning and design, development, timelines, program reviews, testing, employee development and retention, knowledge sharing and collaboration—Whew! And the list goes on.

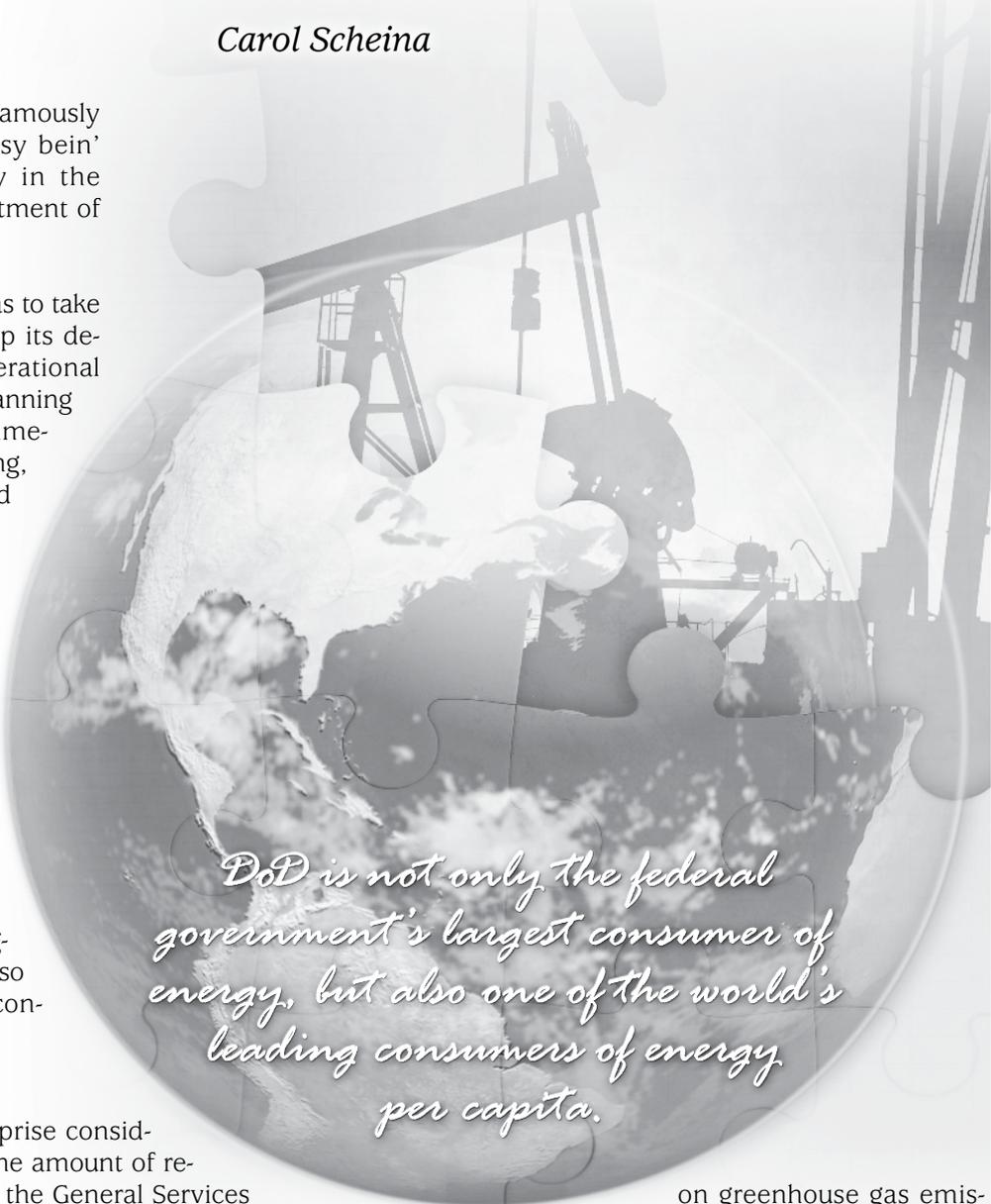
Of course, I don't want to tip the scales in everything that DoD oversees as part of its responsibility of providing for U.S. security and defense, but the fact is that the environment is not something DoD can ignore. The department is not only the federal government's largest consumer of energy, but also one of the world's leading consumers of energy per capita.

Big Energy Consumption

DoD's energy use isn't a surprise considering its immense size and the amount of resources it uses. According to the General Services Administration's 2006 *Federal Fleet Report*, DoD has a total of 187,493 non-tactical vehicles that gulped up 97 million gasoline gallon equivalents. DoD's worldwide operations, containing an estimated 577,000 buildings, consumed 1,100 trillion British thermal units. And according to its 2006 annual report, the Defense Energy Support Center sold more than \$12 billion of energy to DoD.

The figures are rather ugly when you consider the negative effects this has on outdoor air quality and

Scheina is managing editor of Defense AT&L.



DoD is not only the federal government's largest consumer of energy, but also one of the world's leading consumers of energy per capita.

on greenhouse gas emissions and concentrations. The figures become downright scary when you consider that many energy sources, notably oil, reside in countries that are volatile or have governments that are not on the best relations with the United States.

"For too long our nation has been dependent on foreign oil. And this dependence leaves us more vulnerable to hostile regimes, and to terrorists—who could cause huge disruptions of oil shipments, raise the price of oil, and do great harm to our economy," said President George W. Bush in his January 2007 State of the Union Address.

“It’s in our vital interest to diversify America’s energy supply—the way forward is through technology. We must continue changing the way America generates electric power, by even greater use of clean coal technology, solar and wind energy, and clean, safe nuclear power. We need to press on with battery research for plug-in and hybrid vehicles, and expand the use of clean diesel vehicles and biodiesel fuel. We must continue investing in new methods of producing ethanol—using everything from wood chips to grasses, to agricultural wastes.”

Bush’s State of the Union Address was a call for the United States to change the way it does business. That doesn’t mean simply placing more blue recycle bins throughout work buildings. For DoD, that means changing the way it buys, builds, and even works.

Changes in DoD’s environmental practices affect everyone from program managers to engineers to human resources specialists. This article discusses a few green practices that DoD employees will see used increasingly in the coming years. While the article cannot cover all the department’s environmental endeavors, it will hopefully make employees aware that as DoD continues to change the way it does business, some of those changes involve the environment.

Giving Greenbacks to Get Green Products

Part of developing an environmentally friendly framework for the way DoD does business means buying green. Let’s look at a couple of items that affect how DoD purchases everything from computers to toilet paper.

In 2004, DoD issued a new green procurement policy that aims to:

- Educate all appropriate DoD employees on the requirements of federal “green” procurement preference programs, their roles and responsibilities relevant to these programs and the DoD green procurement policy, and the opportunities to purchase green products and services
- Increase purchases of green products and services consistent with the demands of mission, efficiency, and cost-effectiveness, with continual improvement toward federally established procurement goals
- Reduce the amount of solid waste generated
- Reduce consumption of energy and natural resources
- Expand markets for green products and services.

There’s accountability for that policy. In March 2008, all federal agencies reported to the Office of Management and Budget on how much recycled materials they are using for toilet paper, toner cartridges, engine lubricating

oil, signage, park benches/picnic tables, and other items. OMB also asked agencies to report a strategy for buying energy-efficient and environmentally friendly products in the future.

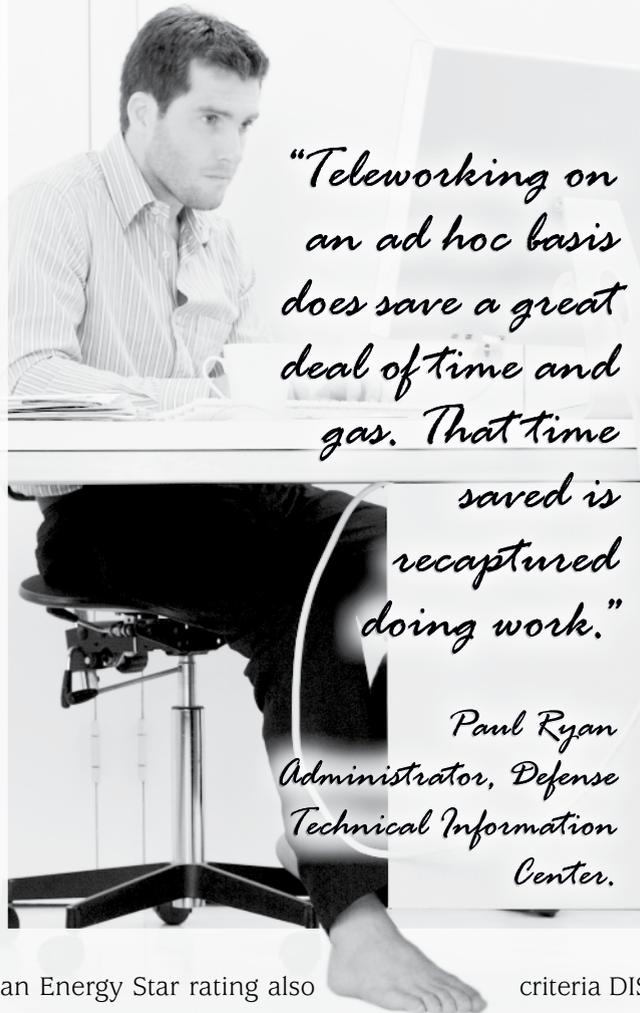
In January 2007, President Bush signed Executive Order 13423, “Strengthening Federal Environmental, Energy, and Transportation Management.” The order requires a government installation to develop an environmental management system, or EMS, which is a formal framework for integrating the consideration of environmental issues into the overall management structure. Agencies must also

- Improve energy efficiency and reduce greenhouse gas emissions
- Ensure that at least half of the energy consumed by the agency in a fiscal year comes from renewable sources
- Reduce water consumption
- Ensure that the agency reduces the quantity of toxic and hazardous chemicals and materials acquired, used, or disposed of by the agency



*Defense locations
are currently bringing
environmentally
friendly practices
to reality.*

- Maintain cost-effective waste prevention and recycling programs in its facilities
- If the agency operates a fleet of at least 20 motor vehicles, reduce the use of oil
- Dispose of agency electronic equipment in an environmentally sound manner.



“Teleworking on an ad hoc basis does save a great deal of time and gas. That time saved is recaptured doing work.”

*Paul Ryan
Administrator, Defense
Technical Information
Center.*

That’s not all. The order also requires that at least 95 percent of computers, laptops, monitors, and other electronic equipment be registered with the Electronic Product Environmental Assessment Tool. EPEAT is an online system designed to provide environmental information about electronic products, such as how much energy is used, materials selected, and longevity. If an electronic device doesn’t have an EPEAT rating, then an Energy Star rating also works.

Green Energy Devices and Buildings

President Bush’s Advanced Energy Initiative sets a national goal of replacing more than 75 percent of U.S. oil imports from the Middle East by 2025. DoD has its own goals to make. An amendment to the 2006 Department of Defense Authorization Bill sets a goal for the department to convert 25 percent of its electronic resources to renewable energy sources by 2025. In 2006, only 8 percent of DoD’s electricity came from renewable energy.

Defense locations are currently bringing environmentally friendly practices to reality. Nellis Air Force Base in Nevada recently built a “Sun Park” Photovoltaic Power Project that allows the base to take advantage of the sunny Nevada days by converting solar rays to energy. It is the largest solar power plant in the United States. And in sunny Hawaii, the world’s largest solar-powered housing community was built at Army Hawaii Family Housing. The Navy is currently building a new geothermal electricity generation plant at Naval Air Station Fallon and evaluating Ocean Thermal Energy Conversion and Ocean Wave Energy technology.

In addition to developing environmentally friendly practices at currently existing locations, the Base Realignment

and Closure (BRAC) window of opportunity is the perfect time to build from scratch buildings that use the latest and greatest environmental techniques.

As part of BRAC, the Defense Information Systems Agency will be consolidating its headquarters into a new building under construction at Fort Meade, Md., and the environment is certainly a factor.

“DISA’s new facility is required to obtain a Leadership in Energy and Environmental Design (LEED) Silver Rating through sustainable construction and design,” according to Dave Bullock, DISA’s BRAC executive. “Although the designer of record has great latitude in obtaining the LEED Silver rating, there are certain criteria DISA is requiring them to meet.”

The LEED system—which was created by the U.S. Green Building Council as a standard for buildings in regards to environmentally friendly design, construction, and operation—reviews the site selection, water efficiency, energy performance, and even indoor furniture of a building before pinning a silver or gold star on it. DISA is working with contractors to ensure that all those criteria are met by its general contractor.

What’s more, when the energy and water bills roll in for the newly constructed DISA building, there are going to be some considerable savings.

“The Energy Policy Act of 2005 has many energy goals and requirements that affect all federal buildings. DISA’s new facility is required to be designed to achieve energy consumption levels that are below the levels established in the ASHRAE 90.1-2004, [American Society of Heating, Refrigerating, and Air Conditioning Engineers Standard 90.1-2004],” Bullock noted.

Work in Your Pajamas

What’s another way to keep those energy and water costs low? Well, what if there were fewer employees physically working at a building? There would be fewer computer monitors draining power and fewer government toilets being flushed, for one thing.

Teleworking—using the Internet, home telephone, and even private fax machines to work from home or an alternative location—is getting more and more recognition from senior policy makers. After all, it’s not just a way to cut down on energy and water costs or to reduce emissions from vehicles.

“A telecommute program would allow employees to work from home when they, or their family members, get sick. Periodic transit strikes, bad weather, traffic incidents, and increased security due to terrorism threats at transportation hubs might also prompt employers to think about setting up a telecommute program,” said John Edwards, chairman and founder of the Telework Coalition, in the Winter 2006 *It All Adds Up* newsletter.

The U.S. Senate recognizes the benefits of teleworking. In November 2007, the Senate Homeland Security and Governmental Affairs Committee voted to make it easier for federal employees to telework by passing a bill that would allow all federal employees eligible to telework, excepting those who work in intelligence, those who work with sensitive information, and those whose job requires a physical presence. This is a step beyond the previous telework policy, which stated that only those granted supervisory approval could telework. In 2006, the Office of Personnel Management reported that only 111,549 federal employees out of 1.8 million teleworked. That number will hopefully continue to grow.

“I have a 90-mile commute, so it is a long one. But teleworking on an ad hoc basis does save a great deal of time and gas. That time saved is recaptured doing work,” said Paul Ryan, the Defense Technical Information Center administrator. DTIC offers all of its employees the option to telework on a regularly recurring basis or an ad hoc basis, and about 70 percent of the center’s workforce teleworks.

Change is A-Comin’

It’s not going to happen overnight, but change is coming for DoD. Growing energy dependence is risky for department operations, as President Bush pointed out, and there need to be better energy practices. Also, environmentally friendly techniques such as telework can help protect the department from lost productivity resulting from terrorist attacks. Recent policies and orders demonstrate that better accountability for the department’s environmental practices will benefit the department.

Ultimately, there’s just one Planet Earth. Just as the warfighter defends our country, DoD can defend our planet.

The author welcomes comments and questions and may be contacted at carol.scheina@dau.mil.

agers are likely to influence *down* or *across* to motivate others to meet deadlines, complete deliverables, or provide information and expertise. Program managers have a greater need to influence *up* in order to gain buy-in at program inception and secure the resources necessary for successful implementation.

As for the differences, the number one competency for each role is telling. Project managers use *Analytical Thinking* to evaluate issues, adjust plans, and solve problems as the project progresses. Program managers, however, must maintain a broader view. They use *Systematic Thinking* to track the interconnections across projects and recognize issues or conflicts that will put milestones at risk.

Program managers also need to understand the impact their programs will have on other areas of the business. Their focus on strategic thinking and the overall business processes differs from that of a project manager, whose customer focus is directed on the short-term needs of internal or external customers.

In terms of the differences in competencies between the two roles, we should note that the program manager is likely to have been a project manager at some point in time and has already developed the skills and competencies required for success in that role. Also, the goal here is to discuss the most important professional competencies for each role. There are certainly other relevant functional and technical skills. That is, just because communication skills are not listed among the most important competencies for program managers, it’s not to imply the skill isn’t useful. However, our data show that communication skills do not differentiate the high performer from the average performer as much as the competencies on our list.

What Does It All Mean?

Although there are similarities between project managers and program managers, there are fundamental differences as well. Recognizing these differences can help organizations enhance the impact of their selection processes, training and development efforts, and performance management systems. Recognizing and articulating the differences in a clear and compelling way will lead to greater productivity and business results.

The authors wish to thank Joyce Quindipan for her contribution to this article.

The authors welcome comments and questions and can be contacted at jpeisach@cambricaconsulting.com and tkroecker@cambricaconsulting.com.