

## **MBAs to the environmental (and financial) rescue**

*Anne VanderMey*

*An Environmental Defense Fund program gives MBA students a crash course in energy efficiency. Then the MBAs crunch the numbers to show the payoff to a company's bottom line.*

Patricia Kenlon was able to save \$35,000 for TXU Energy during her summer internship there this year—and that was just fixing the lights.

She also discovered that the company could turn off air conditioners that were running needlessly during the night for a projected annual savings of roughly \$100,000. She recommended consolidating office refrigerators. And, her favorite, she turned the company on to the VendingMiser. "It's a very smart piece of machinery," says the second-year MBA student at New York University's Stern School of Business (NYU Stern Full-Time MBA Profile). The device costs \$179 and can be installed in vending machines to cool sodas when its motion sensor detects people are present, and hibernate at night when there's no one around. As it conserves energy, it will more than pay for itself within two years. The overall savings from her summer suggestions: more than \$200,000 a year.

Kenlon is a fellow at Climate Corps, an internship program organized by the Environmental Defense Fund (EDF). The group partnered with the sustainability-oriented nonprofit Net Impact to place MBAs in about two dozen companies this year to help the companies conserve energy on site—savings that so far are expected to total \$35 million over five years. At first glance, MBAs may seem like an unlikely choice to advise large companies on how to make their businesses more environmentally friendly. But, more than environmental studies majors or even engineering students—who might seem like a more natural choice—MBAs with a green agenda can make their voices heard by speaking a language near and dear to Corporate America's heart—the language of the bottom line.

They speak the CFO's language

The MBAs were hired "so that they could make the financial case for energy efficiency," says Millie Baird, project manager of the Climate Corps program. The idea was born out of frustration that most companies don't give much of a hearing to environmental issues, which are traditionally associated with economic sacrifice. Business students, she says, present a way around that hurdle. Even at companies that prioritize efficiency, it's hard to get traction saying, "nothing's really broken, but I'd like an extra \$20,000 next year to go and replace all these lights," Baird says. "Why would you do that?" The conversation changes if instead they say: "It'll pay back \$20 million in five years," she says. "Suddenly the CFO is paying attention."

This summer, 26 MBAs participated in Climate Corps—nearly four times the number last year, when the program was launched. Before the start of the internship, which lasts 10 weeks, students are put through an intensive training session conducted by the Environmental Defense Fund, a New York-based nonprofit, and the Rocky Mountain Institute (RMI), an energy and environmental think tank. They learn which are the most efficient fluorescent bulbs, about water heater efficiency, how to economize on heating and ventilation, and other energy-saving measures.

Of course, a short training course doesn't make someone an environmental expert, so it's somewhat surprising that the EDF's recruits were able to find cost-cutting measures the companies hadn't already taken.

Part of the reason the program works, Baird says, is that the up-front investments for sustainability aren't cheap, preventing many companies from taking action. TXU Energy

estimates that implementing all of Kenlon's 22 recommended energy-saving projects would cost about \$60,000. At EMC Corp. (EMC), an intern from MIT's Sloan School of Management (MIT Sloan Full-Time MBA Profile), recommended measures that would cost the information technology company about \$1.1 million. And at Sodexo (EXHO), total costs for the food-services company were much lower, but still about \$10,000. Convincingly plotting out the return on investment can prove complicated—state rebates, labor costs, and product longevity all come into play. So justifying the costs is where MBA training is particularly useful, Baird says. Many students calculated that the projects would pay for themselves within two years.

### Sifting the staff's ideas

Another part, she says, is that it can be valuable to have someone sit down with the staff and compile the ideas employees have but lack the financial savvy or the time to implement. Katie Schindall, a student at Yale School of Management (Yale Full-Time MBA Profile) who worked at Sodexo, said she compiled the staff's suggestions into "a pretty massive spreadsheet" before she set about picking out which would be the most effective. With the MBAs' financial-modeling tools, employee ideas that save money are more likely to become reality.

It's not just about the cash, though. In the MBAs the EDF seems to have found—or created—some true believers. Most of the participating students plan to pursue careers in sustainability, where they can marry their values and business skills. "It's great to be able to combine the passion for environmental sustainability and energy efficiency with business," Schindall says. "The financial director I was working with was great and really wanted to be on board, but he also has a bottom line he has to look at. So it's really great to be able to say: 'Hey, this makes a lot of sense from an energy-efficiency standpoint, and it also looks good on the money side. It's a no-brainer.'"

Not every project will be completed. Some companies will choose not to implement certain measures, either because they're leasing office space or because the up-front investment is too high. And other companies will have staff members re-run interns' assessments on cost effectiveness before deciding whether or not to make the investment.

### Easy windfalls

Trained by EDF and RMI, the MBAs primarily focused on three areas: lighting; heating, ventilation, and air conditioning; and office equipment. In lighting, common recommendations included replacing incandescent bulbs with fluorescent and old fluorescent fixtures with new ones. At Sungard Data Sysems, Chief Marketing Officer Brian Robins says simply installing motion sensors for the lights in SunGard's headquarters will save \$4,017 per year.

Also at SunGard, an intern from the University of Michigan Ross School of Business (Ross Full-Time MBA Profile) was able to locate \$54,467 in annual savings by replacing the aging ventilation systems. At EMC there was a similar windfall. Updating the ventilation systems to provide more efficient cooling for the company's laboratories may save more than \$100,000 annually. Many of the students participating in the internships also recommended cutting down on office-equipment costs by buying Energy Star-qualified equipment and dual-purpose printers and copiers. Fewer machines means less drain on power, even when they're idle. There's also the VendingMiser, which is estimated to make vending machines 46% more efficient.

### Savings in the millions

The ROI is impressive. Sandra Lehane, EMC's global facilities project manager, says one intern's report indicates that the changes, if implemented, could save nearly \$650,000

annually. Sodexo's corporate citizenship director, Jeff Senne, says the company could save tens of thousands at its Buffalo office, where Schindall worked, and that the company also has plans to make similar changes at its 6,000 offices across the globe. If successful, those savings could be in the millions, not to mention the tons of carbon that wouldn't be released into the air.

And that's just the beginning. Last month, McKinsey released a report estimating that the U.S. could save a cumulative \$1.2 trillion by 2020 by investing in energy efficiency, bringing down nationwide non-transportation energy use by 23% per year. Of course, there's a limit to how much environmental good it will bestow on the planet. Stopping global warming will still require at least some financial sacrifice.

Still, energy-efficiency projects may be the easiest way to win environmental converts in the corner office. And it helps to have a little MBA modeling magic to make the case that progress need not be financially painful—it might actually boost the bottom line. Says SunGard's Robins: "We're not interested in sustainability just for our own egos, just to make us feel better. We do it for competitive advantage as well. To identify these savings is a very important part."

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