Does the Fiscal Crisis Mean Postponing Green IT Improvements?

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Does the Fiscal Crisis Mean Postponing Green IT Improvements?

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Colleges and universities are dealing with revenue shortfalls, massive budget cuts, layoffs, furloughs, underwater endowments, underfunded pension plans, enrollment sags, and credit access problems. Some administrators are saying, “We need to put sustainability projects on hold until we work our way through more basic survival problems.” Is this a valid perspective, or an excuse for inaction?

Actually, energy-saving retrofit projects are still fundable, even in today’s credit market, if projected costs and benefits are based on an “investment grade” analysis. Four drawbacks do exist, however:

1. Energy-saving IT projects have not traditionally been considered part of energy retrofit programs, and budget officers might suspect that energy savings provide the rationale for an upgrade desired for technical reasons.
2. No one really understands how much energy is being consumed by IT, or its rate of growth.
3. Even if savings could be identified and sequestered, they might materialize in different organizational “silos” in ways that decouple the capital investment in and the benefits derived from an efficiency project.
4. Some IT energy-retrofits involve hardware (or even software) with a shorter time-to-obsolescence than the typical financing term for an energy-retrofit project.

At a time of fiscal conservatism, these drawbacks will loom even larger. Budget and finance officers have good reason to be extra conservative these days.
Given the realities of this environment, what can an IT leader do to launch a “green IT” initiative and move it forward? Many things you can do cost almost nothing and yet yield significant energy and carbon savings:

- Get an energy audit of your data center(s). Your facilities colleagues can set this up, and your utility might bear the cost. This is probably the single most worthwhile step you can take.
- Develop an overall efficiency metric based on actual measurements. A basic metric is the ratio of total data center consumption, including thermal energy that may come from off-site, divided by total server consumption.
- If you haven’t already done so, change the geometry of rack layouts in your data center, with “cold aisles” and “hot aisles” that run toward CRAC units (so that hot return air does not have to travel perpendicular to cold aisles).
- Raise the data center’s temperature gradually, within the specifications of your equipment.
- Persuade your campus to adopt a purchasing policy that requires Energy Star or EPEAT procurement whenever available, and require new equipment to be delivered with sleep features enabled.
- Persuade your campus to adopt a policy, or at least an administrative guideline, calling for people to enable “sleep” features on computers, printers, copiers, and other office equipment (except for machines that require always on power for research purposes).
- Find out whether your CRAC units have variable-speed fans or can be retrofitted with variable-speed fans, and experiment with low-cost ways to segregate cold aisles and hot aisles.
- In partnership with facilities or energy management staff, investigate possible rebates to help to cover the cost of energy-retrofit projects in your data center.
- Install power-management software for networked computers — a measure that might have the greatest cost/benefit payoff of any energy-saving technical upgrade.

Finally, realize that no one else is going to assume the leadership role in greening up IT if you don’t. Facilities staff and energy managers are busy with campus retrofit projects and budget problems, endeavoring to reduce the campus’s carbon footprint at a time of declining resources, and they might not even be aware of opportunities within your particular silo. You need to inspire people to tackle the problem of IT energy efficiency. At the same time, make sure that the data, metrics, ideas, and alternatives are assembled to support a plan that will go to the next level after you have completed the basic steps outlined above. Everyone wants to cooperate in greening up our campuses,
but in the IT realm, you will have to be the leader who formulates the overall vision and strategy.

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