ACTIONABLE INSIGHTS FROM INDUSTRY EXPERTS

GREENER DATA | VOLUME THREE

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FORTY-TWO

The Little Things: How Small Changes Drive Big Sustainability Wins in Data Centers

Bill Severn, 1623 Farnam

When people think about sustainability in the data center industry, they tend to picture massive solar panels, next-generation cooling systems, and major renewable energy deals. Those things matter, of course, but at 1623 Farnam, I've learned that some of the most powerful sustainability gains come from something smaller. I call those "the little things that matter".

Our facility in Omaha, Nebraska, is a carrier hotel and edge interconnection hub in the center of the country. It's a meeting place for broadband, cloud, content, and connectivity; it's also a proving ground for what I believe is a more practical approach to sustainability and one that doesn't always start with sweeping infrastructure changes, but with a dose of daily awareness.

Every day, our engineers find new ways to tune, tighten, and test our systems. It's about understanding that sustainability isn't a one-time investment, it's truly a mindset. The small actions we take today, multiplied by the people who care enough to notice them, add up to something much bigger.

The 'Set-It-and-Forget-It' Problem

Like many data centers, 1623 Farnam uses a sophisticated building management system (BMS) and Electrical Power Monitoring System (EPMS) to monitor and automate everything from cooling to humidity control. But while automation saves time, it can also make us complacent.

I call it the "set it and forget it" problem. Some people buy a port to peer and "set it and forget it." The reality is, the longer we forget it, the less efficient it becomes. Sensors drift, parameters change, and systems quietly consume energy we don't need to use. You have to go in and check your set points, or you are losing out on efficiencies you could be gaining!

One day, while inspecting our facility, our engineer found an air handler that had been running continuously, both day and night, since the building was rebuilt. When he finally shut it off, the savings came out to about 92 cents a day. Not exactly headline-worthy, but that's $30 dollars a month. Instead of dismissing his find, we rewarded the effort and talked about finding 20 more of those inefficiencies within the facility. It doesn't sound like much until you realize how many systems across a data center can quietly waste the same amount.

The Uptime Institute's 2024 Global Data Center Survey found that operational inefficiencies and cooling mismanagement are still among the biggest drivers of wasted energy.[1] That's when it clicked for me: sustainability isn't just about grand gestures. It's about the people who care enough to notice. And once you start noticing, you see inefficiencies everywhere.

The Little Things in Action

Our facility team at 1623 Farnam has made it a mission to find these small inefficiencies and fix them. Individually, none of them seems major. But together, they create meaningful, measurable impact.

Some examples of these include:

- **The runaway blower cooler:** One of our engineers discovered a blower unit that wasn't responding to the BMS. It had been cooling nonstop. We manually disabled the chilled-water coil for winter, immediately reducing unnecessary load.
- **Overactive space heaters:** We found that the space heaters inside our generator enclosures were running hotter than needed. After adjusting them, we saw a 0.05 Power Usage Effectiveness (PUE) metric improvement the following month!
- **Fine-tuning CRAH setpoints:** For three years, our system automatically triggered free cooling only when outdoor conditions hit 51°F dry bulb and 44°F wet bulb. Through manual testing, we discovered that we could safely enable partial free cooling at 58°F and 52°F wet bulb. That change alone now gives us roughly 500 additional hours of free cooling every year, which is about the equivalent of half an engineer's annual salary in energy savings!
- **Restoring heat exchanger performance:** After cleaning clogged filter screens, we restored normal pump speeds and cut back on unnecessary circulation load.
- **Weekly PUE tracking:** Instead of reviewing efficiency once a month, we started tracking weekly. The closer feedback helped us see which adjustments were working.
- **Rack air sealing:** Contractors often forget to replace blanking panels after servicing customer cabinets. By having employees that care enough to make sure all the panels are restored, sealing those gaps and controlling airflow, we reduced hot and cold air mixing, allowing Computer Room Air Handler (CRAH) fans to slow down and maintain more stable, efficient cooling.
- **Manually adjusting a sump pump switch:** One of our operations employees noticed it wasn't quite cold enough for a sump pump to switch over to pre-cooling, so he manually adjusted the valve to save us $80 in one day.

- **Smarter scheduling:** We noticed that several CRAH units were flushing chilled water at the same time every day, causing pressure dips. By staggering flush times, we eliminated those unnecessary fluctuations.

A Culture That Rewards Awareness

Sustainability isn't just a technical issue, it's a cultural one. The AFCOM State of the Data Center Report found that organizations with engaged, empowered operations teams outperform peers on nearly every sustainability metric.[2]

At 1623 Farnam, we start each day with a short morning huddle. We talk about what went right, what went wrong and what little things we can do better. When one of our building engineers manually switches us over to free cooling on a cold day or notices a pump behaving differently, I make sure that effort gets recognized. These are employees who are even taking the time to monitor these temperatures from their homes and doing manual switches to save money and increase sustainability. It's appreciated more than they know, but I do my best to praise them for their hard work.

If you don't acknowledge the small wins, people stop looking for them. And if they stop looking, inefficiencies creep back in.

Recognition builds ownership, and ownership builds accountability. Those 10 minutes each morning do more to drive sustainability than most software updates. It's the people who keep both the lights and the chilled water running efficiently.

Data-Driven Decisions and Measurable Outcomes

At 1623 Farnam, we track data obsessively. Weekly PUE trends, water usage, system loads and more. Literally every number tells a story if you take the time to look and crunch the numbers.

That approach helps us see which "little things" actually move the needle. When we fine-tune a CRAH setpoint or stagger a flush cycle, we measure the impact immediately. It's a simple philosophy: if you don't measure it, you can't manage it.

The Uptime Institute estimates that 10–15% of total data center

energy is wasted due to under-optimized systems and cooling inefficiencies.[3] I'm determined not to contribute to that percentage, and so are our employees. That makes a difference.

By combining real-time data analytics with a culture of continuous feedback, we've created a feedback loop that works: small action, immediate measurement, visible improvement. Repeat. Add in Cordia's renewable chilled water, and the result is a facility that's steadily reducing its carbon intensity, aiming for a 30% reduction in the coming years.

Lessons for the Industry: Making the Little Things Count

If I've learned anything from this process, it's that sustainability starts with awareness. The most efficient data centers in the world aren't necessarily the newest or the biggest, but they're the ones where people notice the details.

Some of my lessons include:

1. **Empower your engineers:** Give them the freedom to challenge the system. Automation is a tool, not a replacement for human intuition.
2. **Celebrate small wins:** Recognition fuels engagement, and engagement fuels improvement.
3. **Measure more often:** Weekly tracking helps connect cause and effect, turning sustainability into a living process.
4. **Partner locally:** Work with district energy providers, municipalities, and utilities to align sustainability goals.
5. **Lead with culture:** The best sustainability strategies are built from the inside out.

Building a Greener Data Culture

At the end of the day, sustainability isn't a project, it's a practice.

At 1623 Farnam, we've learned that technology alone doesn't make a facility green. People do. The engineers who notice when a fan runs

too long, the operators who stay curious, the teams who celebrate every small victory. Those are the real drivers of progress.

Every fraction of a PUE point, every gallon of water saved and every watt conserved matters. Sustainability isn't a grand gesture, it's a mindset.

When enough of us across the industry focus on the little things, we'll find that we've built something much bigger: a greener, smarter, more sustainable data culture for the future.

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1. Uptime Institute. Uptime Institute Global Data Center Survey 2024. https://uptimeinstitute.com.
2. AFCOM. 2024 State of the Data Center Report. 2024, https://afcom.com/resources.
3. Uptime Institute. Uptime Institute 2023 Outage Analysis Report. 2023, https://uptimeinstitute.com/research

About the Author

BILL SEVERN

Bill Severn serves as CEO and President of 1623 Farnam and Executive Vice President of the BERKS Group, where he has spent 25 years shaping the company's leadership in broadband and digital infrastructure.

With a career spanning fiber networks, cable operations, cloud services and mission-critical data centers, Bill is known for building high-performing organizations and guiding them through transformational growth. He spent more than 20 years leading broadband operations, most notably as COO of NPG Cable, where the company earned Cable Operator of the Year in 2009. Bill was also named one of the industry's Top 35 Leaders in 2010. Shifting into the data center space 14 years ago, Bill developed and operated two facilities in Northwest Missouri through Echo Cloud Solutions with a successful exit in 2015. He led a M&A acquisition of Online Tech in 2012 and a subsequent exit in 2018. At 1623 Farnam, Bill led strategic M&A initiatives that expanded the BERKS Group's digital infrastructure portfolio.

Bill is also deeply committed to community leadership, having served on more than seven nonprofit boards, including as chair of the Chamber of Commerce and United Way. He currently serves on a regional bank board and the Board of Governors for Missouri Western State University. He is also a recognized industry speaker and contributing author of the Greener Data book series.

Greener Data: Volume Three is a timely, industry-driven guide to advancing sustainability across digital infrastructure—from data centers to global networks.

Featuring insights from leaders across the ecosystem, this volume explores how we scale responsibly in the age of AI.

Visit GreenerData.net to learn more and purchase the full book on Amazon.