IRON MOUNTAIN®
DATA CENTERS

CASE STUDY

Akamai

CREATIVE PARTNERSHIP SPARKS REVOLUTIONARY RENEWABLE ENERGY SOLUTION FOR SUSTAINABLE DATA CENTERS EVERYWHERE

CHALLENGE

Targeting 50% renewable energy for its worldwide operations by 2020, Akamai needed sustainable space in the New York tri-state area. A critical success factor for getting to more sustainable operations included access to wind, solar, or other renewable electricity to power the Akamai Intelligent Edge Platform in the New York metro area. Affordability, innovation, and efficiency were vital for this essential data center project.

SOLUTION

Iron Mountain is committed to the RE100 goal of 100% renewable power for global operations, and its data center facilities have been operating on 100% certified green power since 2017. The company's Green Power Pass gives Akamai the contractual right to claim environmental benefits and report notable reductions in greenhouse gas emissions. Instead of buying offsets, Akamai can count its entire data center electricity use as green in external reporting such as the CDP.

RESULTS

The new data center, once it is running at 90% full, will account for about 6% of Akamai's total U.S. electricity load and about 4% of its global load, making vast inroads into the company's renewables target. Cost savings and efficiency gains are certain, leaving Akamai strongly placed to make its operations even more sustainable.

> "THE GREEN POWER PASS DOESN'T JUST HELP AKAMAI REACH ITS BUSINESS AND SUSTAINABILITY GOALS, IT HELPS EVERYONE. ULTIMATELY, IF WE'RE EVER GOING TO BRING ABOUT REAL ENVIRONMENTAL CHANGE, WE ALL HAVE TO WORK TOGETHER.
>
> – MIKE MATTERA, DIRECTOR OF SUSTAINABILITY, AKAMAI

1+1=3: INNOVATIVE, EFFECTIVE SUSTAINABILITY STRATEGIES WITH A LIKE-MINDED PARTNER

SEARCHING FOR LOW PUE PLUS RENEWABLE ENERGY

VITAL TARGETS FOR OUR PLANET

Akamai is a cloud provider with a big heart. Throughout the organization, innovation and excellence go hand in hand with a profound sense of social responsibility. As part of its sustainability policy, Akamai is committed to reducing greenhouse gas emissions by conserving energy, becoming more energy efficient, and procuring renewable energy. A key current target is to source renewable energy for 50% of the company's global platform operations by 2020. "We want to make a shift happen from an environmental perspective," says Mike Mattera, Director of Sustainability at Akamai. "Our biggest breakthrough to date has come from aligning our sustainability policy with the business units' objectives."

RECONCILING COMMERCIAL AND ENVIRONMENTAL DEMANDS

"Iron Mountain was instrumental in helping Akamai expand and design an energy-efficient and cost-efficient data center with connectivity to the major networks in the New York metropolitan area," says Margot Hines, Principal, Data Center Practice at Akamai. "With Iron Mountain's vast global real estate, we are looking forward to a strategic partnership that will allow us to continue to grow Akamai's distributed intelligent edge platform."

All these factors came into play when the company was searching for data center space in New Jersey. Essential to requirements was a combination of low power usage effectiveness (PUE) in the building and renewable energy to power the infrastructure. Above all, Akamai wanted the freedom to innovate, so it could continue exploring ways to build efficiency into its platform and serve traffic faster, more reliably and securely in a sustainably conscious way.

This meant finding a partner who truly understood its goals. Out of four short-listed providers, only Iron Mountain could fully deliver.

"As a result of our partnership with Iron Mountain, we were able to execute fully customized, high-efficiency HVAC features," says Bill True, Director of Data Center Architecture at Akamai. "These features include a fresh air economizer combined with zero-water-consumption refrigeration cooling. The annualized PUE for the data center is estimated to be less than 1.2."

> "A critically important aspect of our business case was finding a partner who not only met our renewable energy requirements but also understood what we were trying to do and could help us to achieve our goals. With Iron Mountain, we found a partner who could do all that – in ways that gave us a competitive advantage."
>
> Mike Mattera, Director of Sustainability, Akamai

6% OF U.S. AND 4% OF GLOBAL renewable electricity loads

50% RENEWABLE TARGET BY 2020 firmly within reach

1,577 MWH PER MONTH of renewable energy on average per month

3,900+ LOCATIONS WORLDWIDE potentially set to benefit

PERFECT COMBINATION OF SPACE, POWER, AND GROUNDBREAKING ENERGY SOLUTION

THE EASIEST WAY TO INCREASE AND MANAGE RENEWABLES CONSUMPTION

ON THE SAME WAVELENGTH
In the building, Iron Mountain offered innovative solutions such as a grid of solar panels on the roof and energy-saving power supplies. But the biggest innovation, and one that closed the deal, was the company's Green Power Pass.

The Green Power Pass (GPP) enables customers to include in their external reporting the total amount of renewable power they consume in Iron Mountain data centers and have it properly validated. An industry first, this approach avoids the need to negotiate virtual power purchase agreements (VPPAs) or to purchase renewable energy credits (RECs).

Instead, GPP customers receive an audited letter of attestation, a detailed report on their power consumption, and full documentation on the renewable power provided by Iron Mountain data centers. For companies of any size, it adds a substantial amount of renewable energy to their overall consumption.

Because GPP contract terms and documentation meet all the provisions of the industry-standard Future of Internet Power protocol, users can report green power use and carbon reductions in accordance with international third-party bodies, such as CDP and WRI, to meet public environmental goals and commitments including RE100 and Science Based Targets for carbon reduction.

BOOSTING RENEWABLES CONSUMPTION
When the New Jersey facility comes online, it will provide Akamai with enough renewable power annually to support 21,024 MWh per year of single-corded loads. That is equivalent to 1,752 MWh per month running at 100%. Even at 90% full (the current target), the data center will receive 1,577 MWh of renewable energy per month, which represents 6% of the company's total U.S. electricity load and 4% of its global load.

"What we're creating in New Jersey is revolutionary and a massive contribution to our renewable goals," Mattera comments. "We are ecstatic to see Green Power Pass help all of Iron Mountain's customers, not just Akamai, as it builds a lasting commitment to the broader data center community."

"The Green Power Pass enables us to lower our carbon emissions in the areas where we work, operate, and live. Having Iron Mountain fully attest to the renewable energy they are giving us is a huge win and helps us get closer to our goals."
Mike Mattera, Director of Sustainability, Akamai

GREENER, MORE COST-EFFECTIVE OPERATIONS

THE FREEDOM TO INNOVATE
Overall, the GPP-enabled facility equates to a huge 12 MW VPPA investment. The money saved will be used on other projects. In addition, the power from a 28 MW solar array will no longer be needed for New Jersey and can be diverted elsewhere, bringing the company even closer to its sustainability targets.

Akamai can get the space and power it needs, in the right locations, affordably, securely and sustainably. One example is exceptional PUE based on developments such as a more tolerant infrastructure that functions in warmer temperatures and reduces the need for power. This type of innovation will further increase sustainability by using renewable energy even more efficiently than was previously possible.

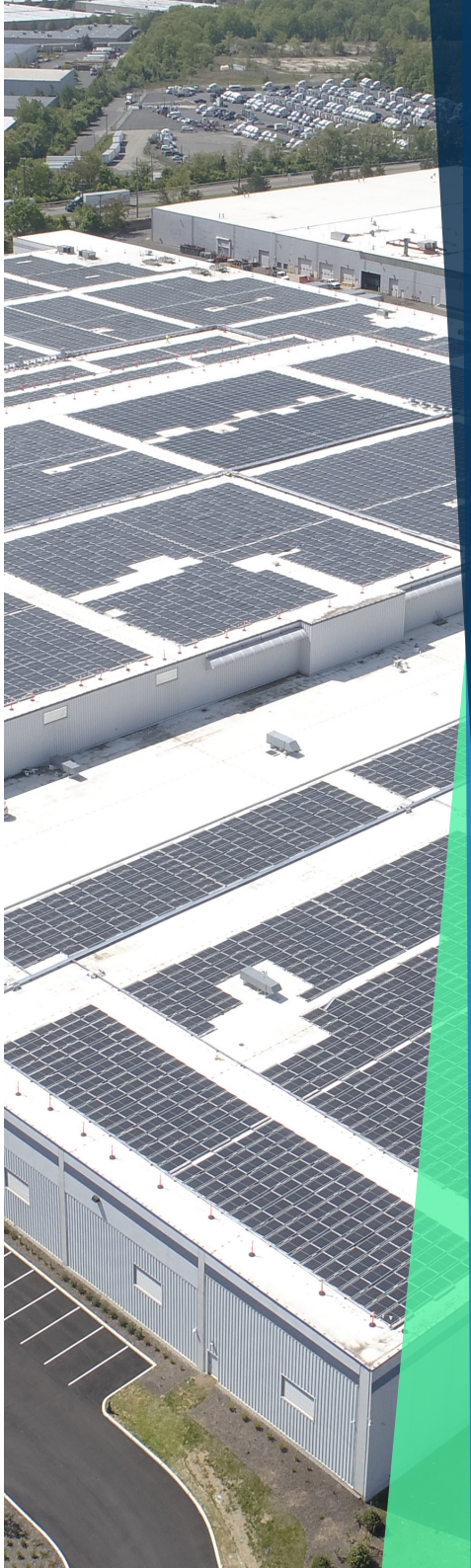
SEEING THE BIGGER PICTURE
On another level, the GPP has greatly simplified the power reporting process by providing all the necessary information in a single package. Akamai knows exactly where the energy is coming from and does not have to manage any VPPAs, purchase any RECs, or involve itself in any of the finer details. This releases Akamai to focus on the bigger picture and working with partners, instead of the daily grunt of energy accounting.

EVERYONE'S A WINNER
Akamai has still only scratched the surface and now has a replicable model for transforming global operations in 3,900 locations. The company intends to act as a beacon to supply chain partners and beyond, leveraging its standpoint in the central fabric of the Internet.

Outside the IT community, there are even broader implications for business and society in general. Consumers everywhere increasingly want their suppliers to be greener, putting pressure on every industry to operate more sustainably. Mike Mattera believes it is no coincidence that the idea for the GPP was sparked by a report from the Future of Internet Power, an industry initiative where members set aside rivalries for the greater good. The message is clear: *collaboration in the long term benefits everyone.*

HOW WE WIN

- Extended leadership in environmental responsibility
- Reduced carbon footprint and efficiency gains, putting Akamai affordably up close to users
- Brand benefits as Akamai honors and evolves its sustainability commitments
- Great potential for future environmental and business improvements



IRON MOUNTAIN®
DATA CENTERS

WE'RE HERE FOR YOUR CHANGING BUSINESS NEEDS

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ABOUT IRON MOUNTAIN

Iron Mountain Data Centers operates a global colocation platform that enables customers to build tailored, sustainable, carrier and cloud-neutral data solutions. As a proud part of Iron Mountain Inc., a world leader in the secure management of data and assets trusted by 95% of the Fortune 1000, we are uniquely positioned to protect, connect and activate high-value customer data. We lead the data center industry in highly regulated compliance, environmental sustainability, physical security and business continuity. We collaborate with our 1,200+ customers in order to build and support their long-term digital transformations within our 3.5M SF global footprint spanning 3 continents. For more information, visit **www.ironmountain.com/data-centers**.

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