Caught in the Middle



How hourly matching reduces impact for distributed loads

Introduction

The Greenhouse Gas Protocol (GHGP) is proposing a major revision to its carbon accounting standards. The "new rule", known as hourly matching (or with 100% matching commonly referred to as '24/7 CFE'), would require companies to match their clean energy purchases to their consumption within the same hour and the same geographic grid region.

An exemption exists for smaller energy users, but the threshold is likely to be set at just 10 GWh per year in any given region. To put that in perspective, 10 GWh per year is the rough equivalent of 10 large grocery stores. This means the vast majority of national companies will exceed this limit and be forced to comply with the complex new rule.

This new rule creates a serious challenge because it undermines how companies fund clean energy projects. The most additional way for a company to add new renewable power to the grid is by signing a Power Purchase Agreement (PPA), which is a long-term commitment that guarantees funding for a new solar or wind farm before it's built. The guaranteed revenue from the PPA unlocks debt financing that gets the project built^{-2,3,4}

However, these high-impact PPAs are typically only available for massive energy purchases of over 250 GWh - a threshold 25 times higher than the GHGP's exemption limit. Under current rules, companies can meet this high bar by combining their energy load from across the country to finance a single, large-scale project. Hourly matching would make this impossible, trapping their accounting within regional borders. This would push companies toward smaller, less impactful purchases, such as spot market RECs to match only specific hours of demand, or force them into slow and expensive partnerships to aggregate their load with others in each region.

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This creates an impact gap for the huge share of companies whose annual regional energy load falls between 10 GWh and 250 GWh. They are "caught in the middle" - too big to be exempt from the rules, yet too small on their own to fund the most effective clean energy projects.

To understand the real-world consequences, let's examine how this proposal would affect several leading companies that are already champions of clean energy.



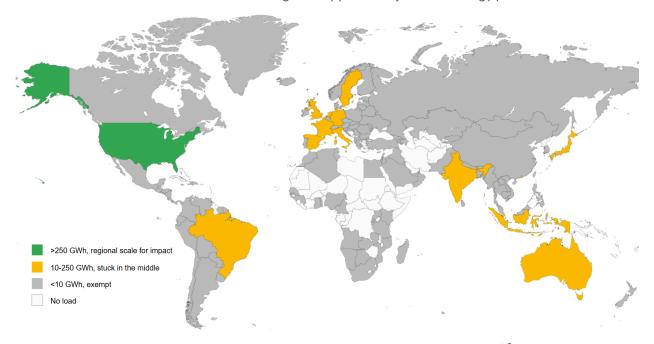
Identify Compliance Obligations

A prime example is Akamai Technologies. Headquartered in Cambridge, Massachusetts, Akamai is a global leader in cybersecurity and cloud computing company that powers business online, offering a comprehensive suite of cloud, security, and content delivery solutions. In simple terms, Akamai runs the vast, distributed network of servers that makes the modern internet fast and secure, delivering everything from streaming movies to security for your most important online transactions.

Operating this massive network across hundreds of data centers makes Akamai a significant energy consumer, and in response, the company has become a recognized leader in sustainability. Akamai has established five ambitious goals for 2030, including sourcing 100% of their electricity from renewable energy and achieving net-zero emissions.

Despite this strong commitment, they are precisely the type of company that could be "caught in the middle" by this hourly matching proposal. To understand why, let's look at their energy use from 2024. Last year, the company <u>used 873 GWh of electricity</u>. But under the proposed rules, this global footprint would be carved up into three different pieces:

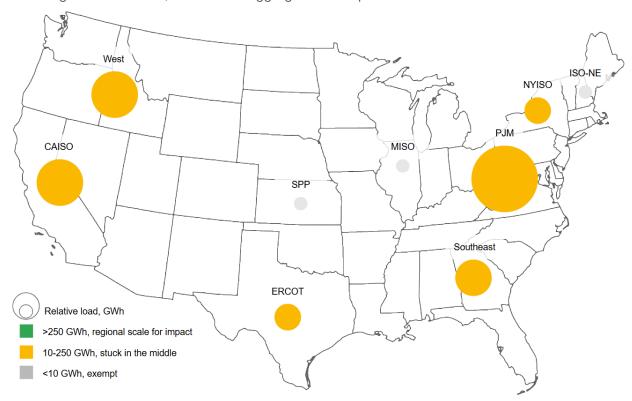
- Small loads (11% of energy use): In 132 countries, Akamai's energy footprint is small enough that they would be exempt from the new rules.
- "Caught in the middle" loads (43% of energy use): In another 14 countries, their energy
 demand is large enough to be subject to the complex hourly rules, but too small in each
 country to independently fund a new, high-impact clean energy project.
- Large load (46% of energy use): The remainder of their energy use is in the United States, where their scale is substantial enough to support a major clean energy purchase on its own.



Akamai Technologies Energy Use by Country, 2024 (GWh)⁶



However, the GHGP is planning to subdivide hourly matching regions in the United States by <u>ISO</u>, breaking up Akamai's load again. Within the US, Akamai would be exempt from hourly matching in 3 regions (SPP, MISO, ISO-NE), but "caught in the middle" in the other 6. This leaves almost 90% of their load "caught in the middle", unable to be aggregated for impact.



Akamai Technologies Energy Use by US Grid Region, 2024 (GWh)⁶

This fragmentation creates a monumental coordination challenge. For Akamai to pursue the most impactful clean energy projects, they would need to organize 25 different partners for 6 contracts in the US alone. On a global scale, that effort would involve a staggering 193 partners across 15 separate contracts. Think of it like planning a party, for the smaller party in the US, you would need to coordinate with 25 different caterers, DJs and party planners. Now imagine planning a global event where you have to manage 193 different suppliers. This level of coordination is nearly impossible, and it is the same challenge Akamai would face when trying to sign clean energy contracts under the proposed guidance.

Mike Mattera, Akamai's Director of Corporate Sustainability and ESG Officer, explains how his team confronts this complexity head-on - not as an insurmountable barrier, but as the landscape in which they must operate to make a real difference.

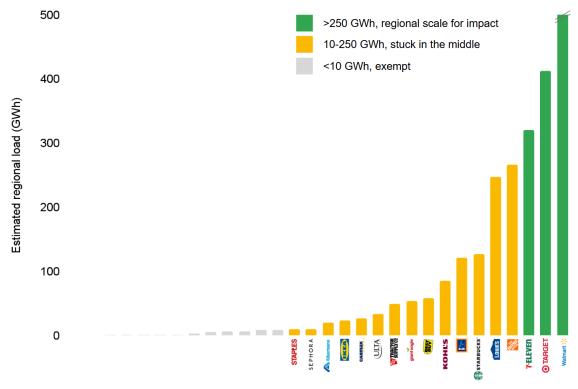
"Coordinating renewable energy procurement across markets, time zones, and regulatory systems is one of the most complex challenges any company can take on especially for a small US-based team like mine. The reality is that this level of coordination is often infeasible at scale with widely distributed loads. Each geography has its own grid dynamics, policy barriers, and contract structures that don't always align neatly but that hasn't stopped us from making progress. At Akamai, we have always taken an emissions-impact-first approach, learning to operate within that complexity rather than wait for it to be solved"



"Aggregated procurements are central to that strategy. They enable companies like Akamai to amplify our impact by combining our smaller, distributed energy loads into projects that make a measurable difference on the grid. Through some of the first aggregated virtual power purchase agreements in the US, we have shown that progress accelerates when organizations collaborate with shared intent, transparency, and flexibility. As we expand internationally, now running procurements across six global markets and pursuing additional US-based projects, we are applying those same lessons globally. It's how we are pushing the boundaries of what coordinated, aggregated renewable sourcing can achieve in a distributed world — getting as close as possible to fully decarbonizing the electricity that powers the internet every day."

40% of leading retailers could be "caught in the middle" under hourly matching

While Akamai is leading the charge to address this issue, many companies in a similar spot will not be able to maintain or increase their sustainability impact under hourly matching. Hourly matching will throttle the impact of whole industries, like retailers who typically have distributed loads. Every quarter, the US EPA <u>Green Power Partnership</u> announces leading companies supporting renewable power, by industry. The Top 30 retail companies are diverse, with loads ranging from 1 GWh to nearly 20,000 GWh. Over 40% of these companies could be "caught in the middle" under hourly matching.⁷



Estimated Regional Energy Use for US EPA Top 30 Renewable Power Retailers⁷
Assumes even distribution of energy use across US ISOs



Similar to Akamai, major companies like Starbucks, Lowes, IKEA, Kohls, Albertsons, and others⁷ that are voluntarily buying clean power will be forced to do smaller, more complex, and more expensive transactions that will meaningfully impede their clean energy programs and have less carbon impact.

Previously, a company could make a real difference by funding a brand-new solar or wind farm, directly adding more clean power to the grid. Hourly matching would shift the focus to purchasing tiny, specific blocks of energy just to match consumption on an hourly basis. This approach often fails to fund new renewable projects, offering little to no "additionality"—the term for creating a real-world impact.

Ultimately, this turns a mission to build clean energy infrastructure into a complex accounting exercise, making it harder to fund the large-scale projects that truly move the needle on decarbonization.

Conclusion

Hourly matching is primarily intended to increase the credibility of carbon accounting by matching supply and demand by hour and geography to ensure companies use the same clean energy they purchase. This is based on the idea that energy can be delivered from a wind farm to an office building, which is not physically accurate. Tracing each unit of energy is impossible on a shared grid, so an hourly matched inventory is no more accurate than the current system.

Our most urgent, near-term objective must be to accelerate the construction of new clean energy projects. This requires us to deploy every high-impact tool currently at our disposal, especially long-term financial commitments like Power Purchase Agreements (PPAs) that directly fund new clean energy development. These are the mechanisms that guarantee "additionality" – adding clean power to the grid that would not have existed otherwise.

In light of the dynamic nature of today's energy policies, we should be encouraging an expansion of voluntary clean energy purchases to support a positive outcome for everyone. Let's champion an approach that prioritizes and protects the large-scale investments essential for developing a robust, reliable, and truly green grid.

Sources

- 1) US EIA Commercial Buildings Energy Consumption Survey (CBECS)
- 2) CEBA Report: Corporate Demand Drives Clean Energy
- 3) ACORE Bridging Demand and Financing: Voluntary Offtake in Clean Energy
- 4) <u>Nature Energy</u>, The Enduring Role of Contracts for Difference in Risk Management and Market Creation for Renewables
- 5) Assumes typical 100 MW PPA (per <u>REsurety</u> offtake data) and 30% capture rate
- 6) Load data provided by Akamai Technologies
- 7) EPA Green Power Partnership Top 30 Retail as of Sept 2025

