Sustainable data centers: Renewable energy as a tool to reduce the carbon footprint

By Levi McAllister, Esq., Morgan Lewis

APRIL 9, 2026

The rapid proliferation of data center development in the United States and globally has emerged as a critical infrastructure trend of the last several years in the global economy. Driven by artificial intelligence, cloud computing, and the digitization of business operations, demand for data processing capacity continues to accelerate sharply. Hyperscale facilities now require hundreds of megawatts of continuous electricity, with some single campuses consuming as much power as a mid-sized city.

Due to the nature of their purpose and function, data centers operate around the clock and rely on energy-intensive cooling systems. In turn, data centers represent a growing and substantial component of electricity load, which necessitates drawing on a range of generation resources. In a world where power demand is satisfied, at least in large part, by fossil-fired generating resources, data center load demand has a direct impact on the volumetric CO2 emissions attributable to data centers. This is true regardless of whether a data center owner/operator has made a public commitment to sustainability, net zero emissions, or renewable energy dependence.

This dynamic creates a practical tension. Data center operators often maintain public targets for 100% renewable energy or net-zero emissions, while the companies that rely on them must account for emissions associated with outsourced computing as Scope 2 or Scope 3 emissions. A company shifting core operations to cloud infrastructure, for example, may reduce direct emissions while increasing indirect emissions tied to its data center providers. Both operators and customers are therefore pressured to demonstrate that rising energy use is matched by credible renewable energy procurement.

Against this backdrop, renewable energy credits (RECs) have become a central tool for aligning electricity consumption with ESG objectives.

The role of RECs in data center decarbonization

RECs are a widely used and generally reliable mechanism for substantiating renewable energy usage. Each REC represents the environmental attributes associated with one megawatt-hour of renewable electricity delivered to the grid and is tracked through established registry systems.

The credits are generated by renewable energy producers such as wind, solar, and hydroelectric facilities and are typically acquired by purchasers either directly from those generators, through utilities, or via intermediaries and trading platforms. As such, RECs, unlike carbon offsets (another sustainability tool that data center owners/operators may use), are tied directly to electricity generation. They allow a purchaser to claim renewable attributes even where physical delivery is not possible due to grid constraints.

Renewable energy credits (RECs) have become a central tool for aligning electricity consumption with ESG objectives.

For data center operators, RECs provide a scalable tool to support renewable energy claims. An operator in a fossil fuel-heavy grid region, for example, may purchase and retire RECs equivalent to its annual electricity consumption to support a "100% renewable energy" claim under prevailing greenhouse gas accounting frameworks. In practice, RECs are often used alongside long-term power purchase agreements (PPAs) and utility green tariff programs.

Structuring REC transactions in the data center market

RECs are integrated into a range of contractual arrangements between utilities, developers, intermediaries, and data center customers.

In bundled transactions, a utility supplies both electricity and associated RECs under a single agreement. In unbundled transactions, RECs are sold separately, allowing purchasers to match renewable attributes to load in a different location. Data center operators may also procure RECs through PPAs that provide both energy and a stream of associated credits.

These arrangements require careful allocation of rights and obligations. Agreements typically address ownership of RECs, timing of transfer, retirement responsibilities, and representations

regarding validity and exclusivity. For example, contracts may require RECs to be retired within a defined reporting period or prohibit resale of the same environmental attributes.

Key legal and commercial considerations

As REC usage scales to meet rising data center demand, the underlying legal and commercial structures are moving to the forefront. Market participants should focus on several key considerations when negotiating and implementing REC strategies.

Contractual clarity and allocation of rights

Clear delineation of REC ownership is essential. Contracts should specify whether RECs are bundled or unbundled, who has the right to claim environmental benefits, and which party is responsible for retirement. If a utility retains RECs associated with delivered electricity, the customer may be unable to claim renewable energy usage for that portion of its load.

Alignment with disclosure and reporting frameworks

Companies using RECs must ensure procurement aligns with applicable disclosure frameworks and greenhouse gas accounting standards. This includes matching retired RECs to reported electricity consumption under the market-based method for Scope 2 emissions and maintaining consistency across sustainability reports, investor disclosures, and marketing materials.

Geographic and temporal matching considerations

Stakeholders are increasingly examining where and when renewable energy is generated relative to consumption. RECs sourced from a different grid region or matched on an annual rather than more granular basis may not fully address stakeholder expectations regarding emissions associated with specific facilities.

Integration with broader energy strategies

RECs are typically part of a broader portfolio that may include PPAs, green tariffs, and on-site generation. For example, an operator may rely on a long-term solar PPA for a portion of its load while using RECs to cover residual consumption or timing mismatches. Coordinating these tools is critical to maintaining consistency between operational practices and reported ESG outcomes.

Managing ESG risk in a high-growth environment

The increasing visibility of data center emissions is elevating ESG-related legal and reputational risks. Companies that rely on data centers, whether as operators or customers, are under pressure to substantiate environmental claims with credible and verifiable data.

This increases the importance of internal governance and coordination. Legal, sustainability, and commercial teams must ensure that REC procurement, contractual rights, and public disclosures are aligned. A company claiming "100% renewable energy," for example, should be able to demonstrate that it has acquired and retired a corresponding volume of RECs and that those claims align with reported emissions data.

Regulators and private litigants have increasingly scrutinized environmental claims that are not supported by underlying data or that rely on inconsistent methodologies. While enforcement activity has often focused on carbon offsets, the same principles apply to renewable energy claims supported by RECs.

Looking ahead

The continued growth of data centers is unlikely to slow, and demand for electricity and renewable energy attributes will intensify. RECs are expected to remain a central and reliable component of the energy procurement toolkit given their flexibility and scalability.

The key challenge is not whether to use RECs, but how to use them effectively within a rapidly evolving legal and commercial landscape. Utilities, developers, and data center operators that prioritize contractual clarity, align procurement with disclosure frameworks, and integrate RECs into broader energy strategies will be better positioned to meet stakeholder expectations and manage risk.

Levi McAllister is a regular contributing columnist on energy and investment for Reuters Legal News and Westlaw Today.

About the author

Levi McAllister, a partner at **Morgan Lewis**, is head of its electric vehicles (EV) working group, energy decarbonization working group, and energy commodity trading and compliance working group, and helps energy companies navigate the regulatory and investment environment for both conventional and emerging energy technologies. He guides clients seeking to reduce their carbon footprints and take advantage of new and evolving energy storage and infrastructure assets, while also advising on energy commodity trading and the deployment of EVs and EV infrastructure in U.S. markets. He is resident in the Washington, D.C., office and can be reached at levi.mcallister@morganlewis.com.

This article was first published on Reuters Legal News and Westlaw Today on April 9, 2026.