Verdafero

Work in Progress Report

2026

ALASTAIR HOOD, PRESIDENT & CEO

At a glance...

SEE HOW VERDAFERO STACKS UP

Millions of square feet under management

160,000,000

Properties in our system

800+

Year founded

2008

300,000+

Metric Tons CO_2e monitored through our platform

LETTER FROM LEADERSHIP

A Note from Dr. Alastair Hood: Founder/CEO

The built environment is responsible for nearly 40% of global carbon emissions. Every building that exceeds its energy targets, every delayed retrofit, every compliance deadline missed—these aren't just operational failures. They're planetary ones.

When we started Verdafero in 2008, the industry treated building performance like an afterthought. Energy management was something you outsourced to the lowest bidder and checked once a year if someone remembered. Sustainability reporting, if there even was one within an organization, was theater—glossy PDFs with cherry-picked metrics that told you nothing about actual impact.

We believed buildings could do better. More importantly, we believed the people responsible for them wanted to do better—they just needed the right tools.

Why This Matters Now

2026 is not just another year for building owners and operators. It's the year when decades of benchmarking ordinances transform into performance standards with real financial consequences.

In May and June of this year, building owners managing properties in New York City, Boston, Washington DC, Chicago, Los Angeles, and across California will potentially face their first major compliance deadlines under some of the nation's most aggressive building performance standards. Penalties range from hundreds to hundreds of thousands of dollars annually. And this is just the beginning—30+ additional cities have committed to adopting similar standards by year-end.

The 2026 compliance cliff is real. But it's also an opportunity.

What We're Building

Verdafero exists at the intersection of regulatory compliance, operational excellence, and genuine climate action. Our patented software platform manages over 160 million square feet across 800+ properties, helping clients navigate the increasingly complex landscape of municipal, state, and federal building performance requirements.

But we're not just a compliance tool. We're building the infrastructure for a decarbonized building sector.

Every property in our system gets:

- Utility monitoring and anomaly detection
- Benchmarking across multiple jurisdictions
- Predictive analytics for performance gaps before they become violations
- Planning reports that prioritize ROI and emissions reduction
- Supply chain transparency for sustainability reporting
- Location based and market based GHG emissions reporting

The Tension We Live With

Here's the uncomfortable truth: our business succeeds when buildings fail to meet their targets. The more complex the regulations, the more desperate the need for our platform and professional services, the more revenue we generate. That tension is not lost on us.

We could optimize that complexity. We could celebrate every new ordinance as a market opportunity. We could build a business model that depends on perpetual confusion and last-minute scrambles.

Instead, we're trying something harder: building a software platform good enough that our clients don't just meet compliance—they surpass it with minimal stress on the client. We're trying to make building performance so routine, so embedded in standard operations, that specialized tools become unnecessary.

Insight without action is expensive. Transparency is terrifying and necessary.

Transforming building underperformance into capital-efficient improvements through visibility and discipline.

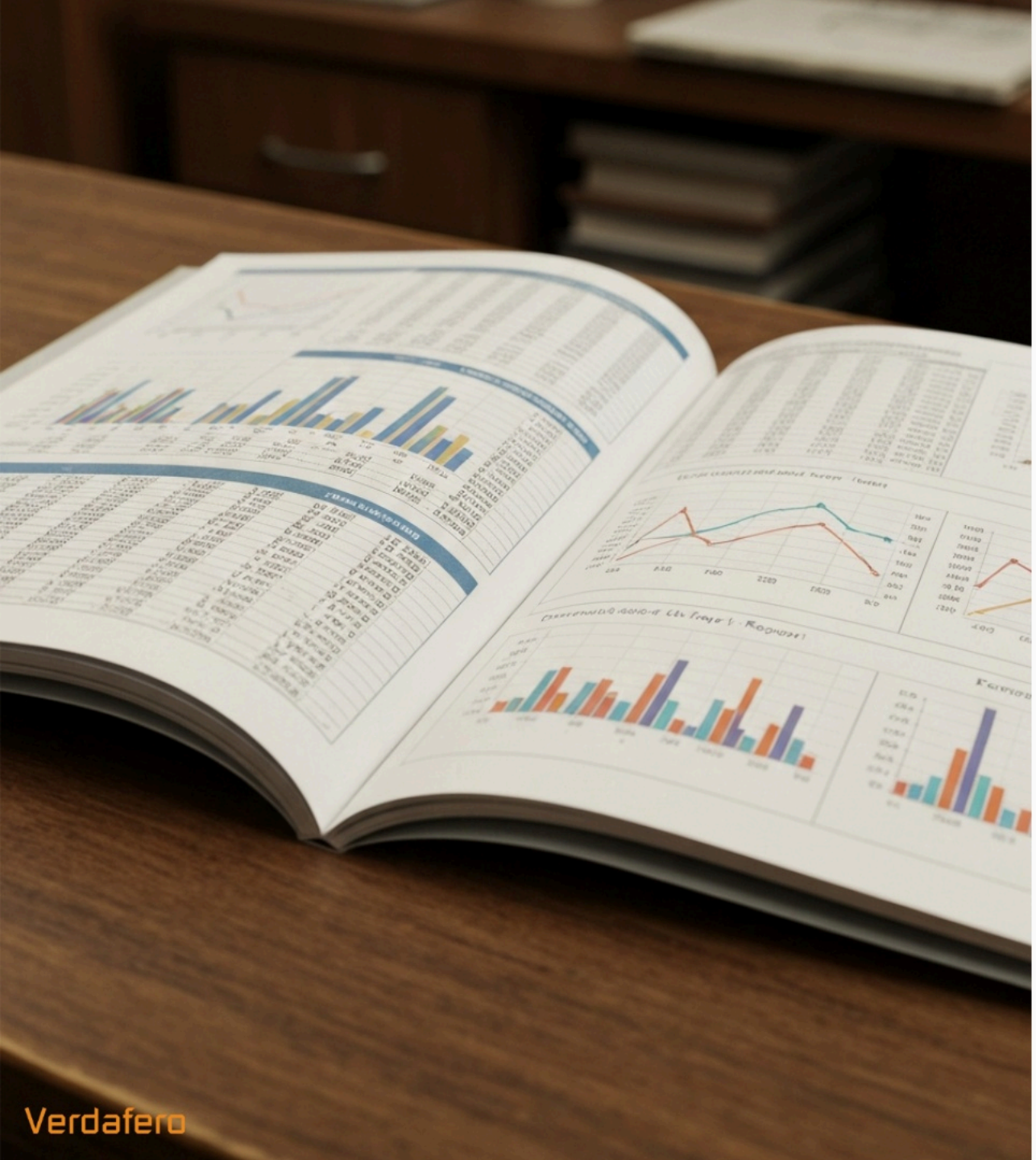
What We've Learned

Most building underperformance is operational, not structural. The majority of properties can cut energy use 10-20% through schedule optimization, setpoint adjustments, and catching anomalies early. You don't need a capital campaign. You need visibility and discipline. That’s where Verdafero – InSights comes in.

Data without action is just expensive guilt. What's missing is the connective tissue between insight and execution - the workflow tools that turn a red flag into a work order, a performance gap into a capital plan.

Transparency is terrifying and necessary. Every client who opens their building data to us worries about exposure. What if we're worse than we thought? What if our competitors are better? But you can't improve what you won't measure. And you can't build trust in this space without radical honesty about where you stand.

Visibility and discipline are key to operational improvements.



What's in This Report

We're sharing what we've built, what we've enabled, and—critically—where we're falling short. You'll find metrics on
emissions reductions, compliance rates, and client outcomes. You'll also find honest assessments of gaps in our platform, limitations in our data, and challenges we haven't solved. If we're asking our clients to report honestly on building performance, we owe them the same in return.

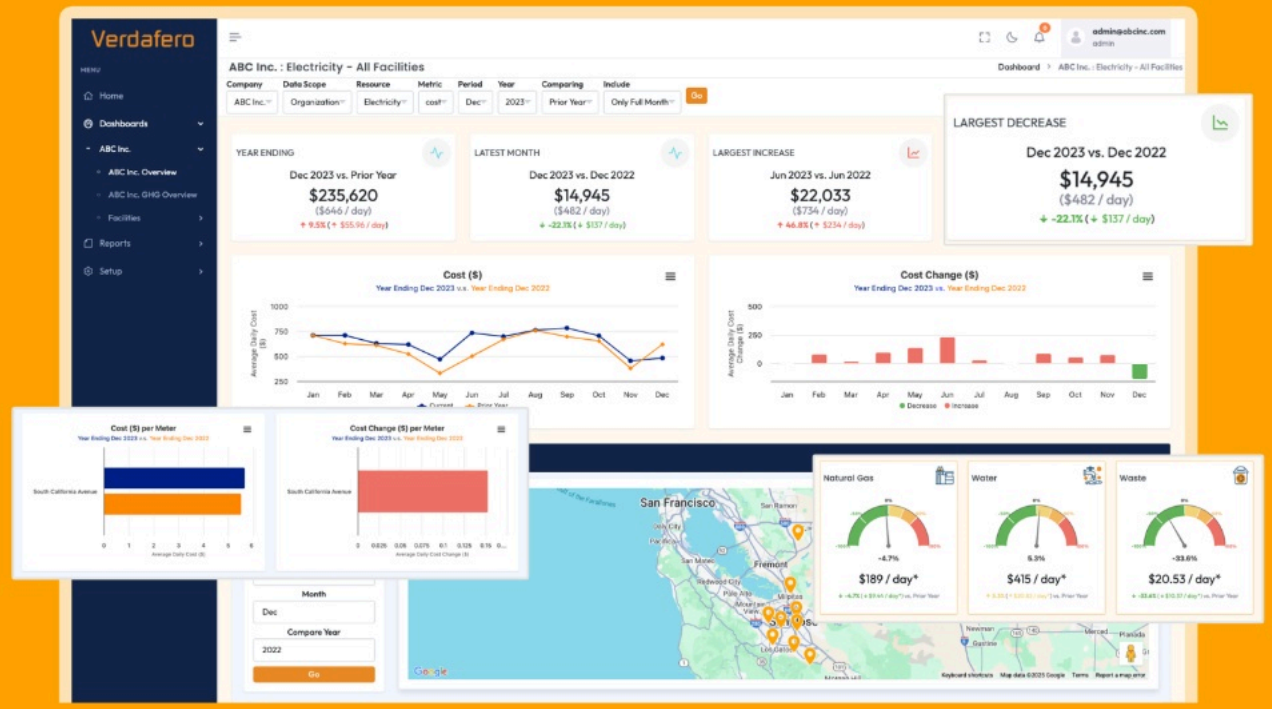
The next decade will determine whether the built environment becomes a driver of climate solutions or an anchor dragging us toward catastrophe. Regulations are tightening. Investors are demanding transparency. Tenants are choosing based on environmental performance. Customers are demanding your corporate GHG footprint. Buildings will change. The only question is whether the change will be strategic or chaotic.

We're building Verdafero to make strategic changes possible. This report shows how far we've come—and how far we still need to go.

Alastair Hood
PhD, Founder & CEO

Verdafero: Navigating Building Performance Regulations (BPR)

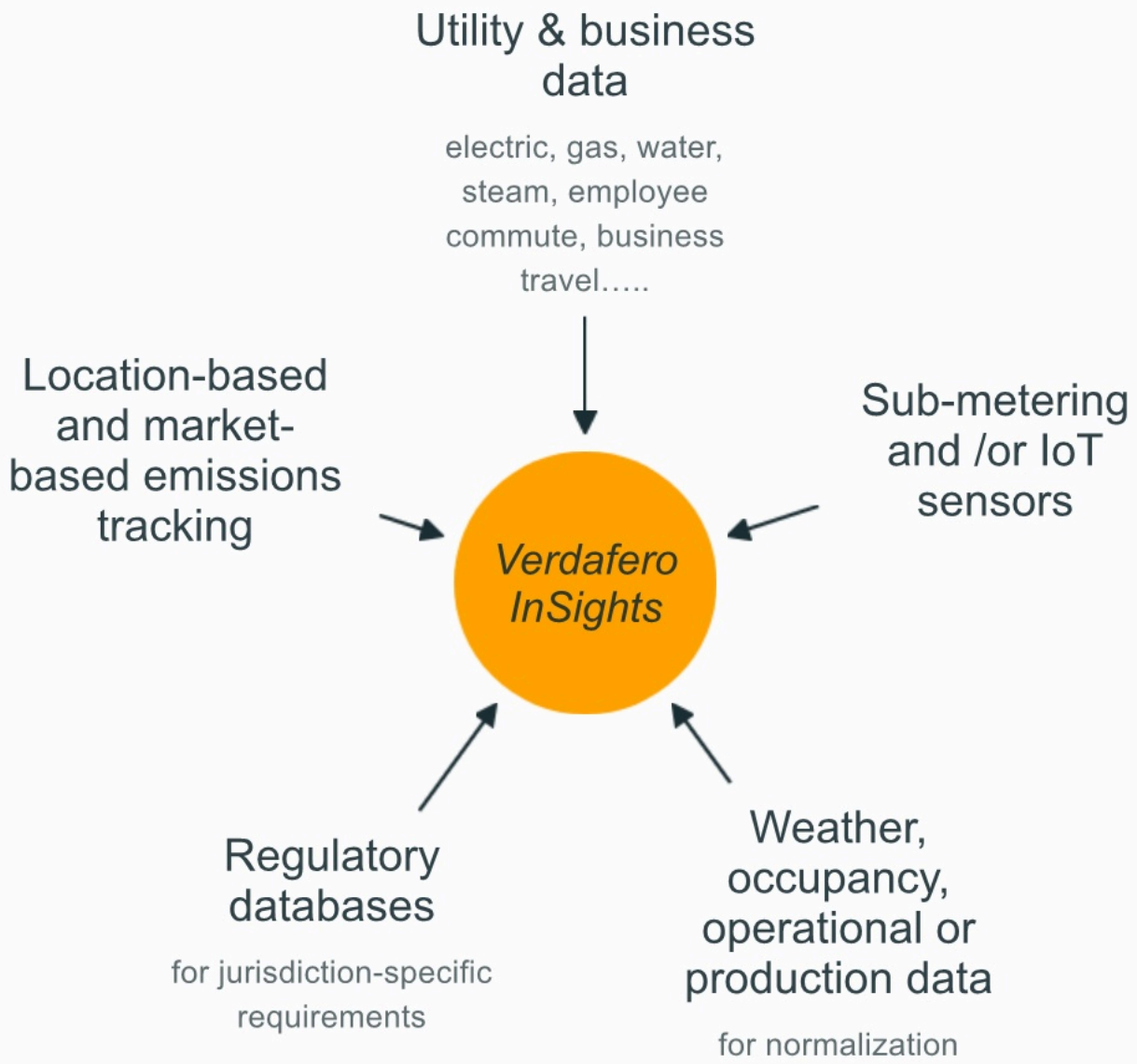
We help building owners and operators avoid costly penalties, reduce operating expenses, and meet the growing wave of municipal, state, and federal performance standards—without needing to become experts in energy engineering or regulatory compliance.



Verdafero InSights

Our System Integrations

Connecting Key Data Sources for Comprehensive Analysis



Our Comprehensive Service Offerings

Real-Time Monitoring & Alerts

- Anomaly detection for unusual consumption patterns
- Demand spike identification before they compound

Compliance Assistance

- Multi-jurisdiction benchmarking (ENERGY STAR® Portfolio Manager integration)
- Deadline tracking across all applicable ordinances
- Report generation and submission
- Verification audit support

Energy & Water Auditing

- ENERGY STAR® Certification

Performance Analytics

- Building-specific targets vs. actual performance
- Peer benchmarking by property type, location, and size
- Historical trending and seasonal normalization
- Portfolio-wide roll-ups for multi-property owners
- Property / utility comparisons

Capital Planning

- Energy audit integration and retrofit ROI modeling
- Emissions reduction scenario planning
- Incentive and rebate identification
- Capital stack prioritization (highest impact per dollar)

Who We Serve

1. Institutional owners (REITs, pension funds, sovereign wealth funds)
2. Affordable housing operators
3. Property management companies
4. Health clubs
5. Higher education and healthcare systems
6. Corporate real estate portfolios
7. Financial institutions
8. Local municipalities

Why We Exist

Verdafero connects the fragments, enables proactive management, and provides the decision support infrastructure that the moment demands.

- ## Fragmented

  Utility bill payment happens in accounting. Energy benchmarking happens in operations. Capital planning happens in finance. Sustainability reporting happens in marketing. No single system connects them.

- ## Reactive

  Building teams learn about performance problems months after they occur, when utility bills arrive or annual benchmarking reports are due. By then, waste has compounded and opportunities have passed.

- ## Poorly Equipped

  Excel spreadsheets and manual data entry don't scale. Consultants are expensive and deliver point-in-time insights that go stale. Generic dashboards show pretty charts but don't tell you what to do next.

- ## Transparency Over Optics

  We will never help a client "greenwash." If a building is underperforming, we say so—and provide a roadmap for improvement. We won't massage data to make dashboards look better.

- ## Regulatory Fluency, Not Fear

  Compliance deadlines and penalty structures are real, and we help clients navigate them. But we won't use scare tactics to sell our software analytics platform or consulting services. The goal is performance excellence, not last-minute scrambles.

- ## Operational Focus

  Most building performance problems are operational. Before recommending a $2M HVAC replacement, we help clients extract maximum performance from existing systems through better management.

- ## Vendor Neutrality

  We integrate with multiple utility providers, and partner with consulting firms. We don't lock clients into proprietary hardware or consultant relationships. The platform works with their existing stack.

- ## Client Success = Planetary Success

  We measure our impact by the emissions our clients avoid, the penalties they prevent, and the operational efficiency they achieve. If buildings in our system are performing better, we're succeeding.

Client Success = Planetary Success

Where We Need to Grow

Tenant Engagement

For commercial properties, tenant behavior drives a significant portion of energy use. We have limited tools for tenant-level monitoring, sub-metering allocation, or engagement programs.

Embodied Carbon Tracking

Current platform focuses on operational emissions. We don't yet track embodied carbon from building materials, construction, or major renovations—an increasingly important factor in whole-life carbon accounting.

This is what we've built. The next section shows what it's accomplished.

EOY REPORT

Impact by the Numbers

160,000,000

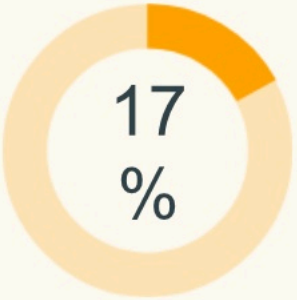
Managed Square Footage

Managed Properties

700

▲ 31% vs last year

Managed Square Footage Growth



Benchmarking Compliance

100%

of required reports submitted on time

Total Benchmarking Reports

573

filed across all jurisdictions

Active Clients

800

CASE STUDIES

Client Outcomes

Case Study 1: Health Club

San Francisco, CA

- **Location:**

  San Francisco, CA

- **Size:**

  357,000 ft2

- **Property Type:**

  Fitness Center/Health Club/Gym

- **Challenge:**

  Reporting their annual Scope 1, 2 & 3 greenhouse gas emissions to satisfy a request from a large corporate client

- **Intervention:**

  Verdafero InSights made it easy to track and calculate all utility usage, for Scope 1 and 2 emissions, as well as business travel, employee commute, upstream transportation and waste disposal for their scope 3 emissions. The club was able to produce an in-depth emissions report for the corporate client. They also used the software to monitor their efforts each month across the year to keep on track and set up alerts to catch any potential issues early before they became major problems.

Current Gaps in Knowledge

What We Don't Know Yet

- Rebound Effects: When buildings reduce energy in one area (e.g., heating), do occupants compensate elsewhere (e.g., portable heaters)? Our measurement approach may miss some system-level rebound.
- Causality Confidence: While we track improvements after platform implementation, isolating our impact from other factors (weather, occupancy changes, concurrent retrofits) is imperfect. Some claimed savings may be overcounted.
- Equity Impacts: We track building performance, but we don't measure whether efficiency gains translate to lower costs for tenants, particularly in affordable housing. This is a critical gap.

These numbers tell part of the story. The next section addresses the harder questions.

The Fundamental Contradiction

We exist to help buildings reduce their environmental impact. But every aspect of our business—from the servers that run our platform to the travel required to onboard clients—generates emissions. This ratio matters, but it doesn't erase the contradiction. We're a software company telling others to reduce consumption while running on energy-intensive cloud infrastructure. We haven't solved this tension—we're just trying to ensure the buildings we help decarbonize more than offset the emissions we create.

The Data Gap

What We Can't Measure

Tenant-Level Consumption

In commercial properties, we typically monitor whole-building usage. Individual tenant behavior—which can drive 30-40% of energy use—is often invisible to us. Sub-metering exists in some properties but is expensive and rarely covers all tenants.

Indoor Environmental Quality

We optimize energy reduction, but we don't systematically track whether those optimizations affect indoor air quality, thermal comfort, or occupant health. A building can be energy-efficient and miserable to work in.

Embodied Carbon

Operational emissions are only part of the story. The carbon embedded in building materials, construction, and major renovations can be enormous—but our system doesn't track it. When we recommend a capital project, we're not accounting for the embodied carbon of the intervention.

Water-Energy Nexus

We track water consumption for benchmarking, but we don't model the energy used to treat and deliver that water, or the energy used in wastewater processing. This "indirect" energy is real but invisible in our metrics.

Upstream Emissions

Most grid electricity comes from fossil fuels. We track kWh consumed, but we don't track the full supply chain emissions from fuel extraction, processing, and delivery to the power plant. Our carbon calculations use EPA grid factors—which are approximations, not precision.

What We Measure Imperfectly

Weather Normalization

We adjust for weather trends to isolate performance changes from climate variations, but weather impacts are complex. A warm winter doesn't just reduce heating—it can increase cooling, affect humidity, and change occupancy patterns. Our models are good but not perfect.

Occupancy Changes

Pandemic-era remote work scrambled every assumption about typical building occupancy. Even now, patterns are erratic. We try to normalize for occupancy, but self-reported occupancy data is often unreliable or unavailable.

Capital Project Savings

When a client does a major retrofit (new HVAC, building envelope, lighting), we track before/after energy use. But attribution is messy. Did savings come from the new equipment, better commissioning, or just more attention to the building? It's hard to isolate without dedicated sub-metering.

Verdafero's Revenue Drivers

Business Model Tensions

Verdafero's revenue grows when:

- Regulations get more complex
- Penalties get more expensive
- Property owners feel more overwhelmed

The worse the regulatory landscape gets for building owners, the better our business performs. This creates perverse incentives. We could lobby for more aggressive ordinances, shorter deadlines, and stricter penalties—knowing it would drive demand for our platform.

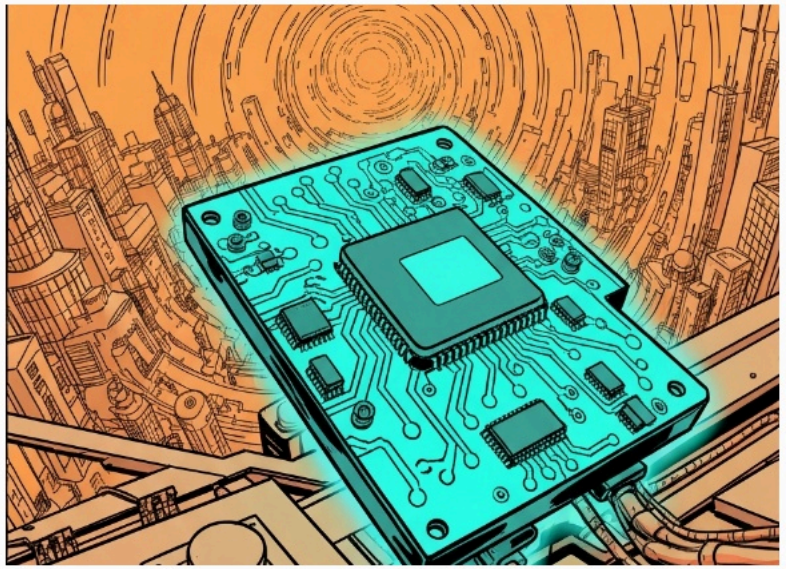
What we do instead: We actively support clear, predictable regulations with reasonable timelines. We provide free educational content on compliance. We don't engage in fear-based marketing.

What We're Not Comfortable Claiming

Honesty and Transparency in Our Communications

"CARBON NEUTRAL" or "NET ZERO"

We avoid these terms. They often rely on offsets or accounting tricks that make numbers look better without changing physical reality. We track absolute emissions reductions—the only metric that ultimately matters.



"AI -POWERED" EVERYTHING"

We use machine learning for anomaly detection and predictive analytics. But we don't slap "AI" on every feature to sound impressive. Most of the value in our platform comes from good data architecture, clean integrations, and thoughtful UX—not algorithmic magic.

"COMPLETE SOLUTION"

We're a platform for monitoring, analysis, and compliance. We're not a building operator or retrofit contractor. We depend on a larger ecosystem of expertise, and we're honest about what's outside our scope.

Looking Ahead: 2026 and Beyond

What's coming, what we're building, and what we need help with

The Regulatory Wave

2026: The Year Everything Accelerates

As detailed in our Compliance Cliff analysis, 2026 marks a turning point for building performance regulation in the United States:

30+ additional cities have committed to passing building performance standards by end of 2026.

What this means: The industry is shifting from voluntary sustainability to mandatory compliance with financial consequences. Building owners who treated energy management as "nice to have" are now facing existential business risk.

International Context

While the U.S. regulatory landscape is accelerating, Europe and Asia have already moved further:

- EU's Energy Performance of Buildings Directive sets 2030 and 2050 targets
- UK, France, Netherlands have comprehensive building renovation mandates
- Singapore, Tokyo, Seoul have mature performance standard programs

For U.S. clients with international portfolios: Compliance fragmentation is even worse. Our current platform is U.S.-focused; international coverage is gaining traction. We already work in the UK with system wide integration for our partners who use our platform to supply analytics to their UK customer base.


What We Need Help With

The Access Problem

We need to figure out how to serve smaller building owners and affordable housing operators. Ideas we're exploring:

- Partnerships with affordable housing developers and community land trusts
- Grant-funded pilot programs in underserved markets
- Open-source "lite" version of core benchmarking tools

What would help: Philanthropic funding for subsidized access, co-investment from mission-aligned capital, government programs that provide compliance assistance rather than just penalties.

The Data Integration Nightmare

Every BMS vendor has proprietary protocols. Every utility has different data availability. Every jurisdiction has different reporting requirements.

We can't solve this alone. We need:

- Industry standards for BMS data access
- Utility commitments to timely, granular data availability
- Regulatory harmonization across jurisdictions (shared metrics, platforms, timelines)

What would help: Policymakers mandating interoperability, utility regulators requiring interval data access, industry coalitions establishing data standards.

The Workforce Capacity Gap

Even perfect software doesn't matter if building operations teams don't have capacity to act on insights.

The industry needs:

- Training and certification programs for modern building operations
- Better tools for remote monitoring and management (reduce on-site staff requirements)
- Clear career pathways to attract talent into building operations

What would help: Industry associations investing in workforce development, community colleges offering relevant programs, clearer recognition of the strategic importance of building operations.

The Embodied Carbon Challenge

Operational emissions are getting addressed. Embodied carbon is the next frontier, and it's complex:

- Data isn't standardized across material suppliers
- Construction industry transparency is limited
- Trade-offs between operational efficiency and embodied carbon are poorly understood (e.g., does a high-embodied-carbon retrofit pay for itself in operational savings?)

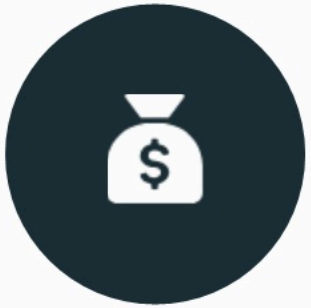
What would help: Mandatory Environmental Product Declarations, embodied carbon limits in building codes, lifecycle carbon analysis tools becoming standard practice.

Our Commitments

What We Will Do

Maintain Transparency

This report format—including the "Where We're Falling Short" section—will be annual. We'll continue to publish what's working and what isn't, even when it's uncomfortable.



Prioritize Impact Over Revenue

We won't lobby for more punitive regulations just to drive demand. We'll support clear, reasonable standards that give building owners time to adapt.

Support the Ecosystem

We'll open-source tools where it makes sense, share best practices publicly, and invest in industry-wide capacity building even when it doesn't directly benefit our business.

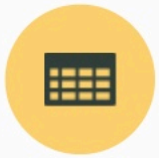
What We're Asking Of Others

To Building Owners

Take energy and water management seriously before you're forced to. The buildings that thrive in the next decade will be the ones where performance is a strategic priority, not a compliance afterthought.

To Policymakers

Set clear, predictable standards with reasonable timelines. Invest in building owner education and support. Harmonize requirements across jurisdictions where possible. Mandate data interoperability.



To Utilities

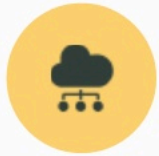
Provide timely, granular energy data. Stop treating interval data like a premium upsell. Building performance depends on visibility, and you control the visibility.

To Technology Vendors

Adopt open standards. Stop building proprietary lock-in. The industry moves faster when systems talk to each other.

To Investors

Fund companies working on the hard, unglamorous infrastructure of building decarbonization. This won't be a winner-take-all market, and it shouldn't be. Diversified competition and collaboration will get us further than a VC-backed monopoly.



To Fellow Climate Tech Companies

Share what works. Admit what doesn't. We're not competitors in a zero-sum game—we're collectively trying to decarbonize the built environment before it's too late.

The Honest Outlook

The optimistic case: Building performance standards proliferate, enforcement is real but fair, the industry rises to the challenge. Retrofits accelerate, renewable energy adoption surges, operational excellence becomes standard. By 2035, the built environment is on a credible path to net-zero.

The pessimistic case: Regulations stall under industry pressure. Enforcement is weak and inconsistent. Building owners delay action until the last minute. Capital flows to wherever regulations are weakest. By 2035, buildings are still the largest source of emissions, and climate targets are out of reach.

The likely case: Messy, uneven progress. Some cities and building owners lead. Others lag. Regulatory fragmentation creates inefficiency. Technology helps but doesn't solve everything. By 2035, we've made real progress but not nearly enough.

Our role: Verdafero can't determine which case prevails. But we can make the optimistic case more likely by providing the infrastructure, intelligence, and accountability mechanisms that enable buildings to perform.

This is our work. It's not finished. It won't be finished in 2026, or 2030, or probably ever. But every building that performs better, every penalty avoided, every ton of emissions eliminated—it all matters. The built environment will change. We're here to ensure that change happens strategically, not chaotically.

HQ

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Get Involved/ Get in Touch

Whether you are a building owner, an investor, a policymaker or have some other role within the frameworks we are talking about in this report, we are happy to work with you.

Visit our website at https://www.verdafero.com and feel free to contact us for more information or to even simply chat about what we are up to.

This report represents our commitment to transparency in an industry that desperately needs it. Buildings account for 40% of global carbon emissions. We exist to change that.

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