

PTC

HONOLULU, HI

Constraints, Opportunities, and the Pursuit of Net Zero Data Centers



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Green Building Initiative

25

“Global data center industry to
emit **2.5 billion tons** of CO₂
through 2030”

Morgan Stanley, September 2024



Evaluating Embodied & Operational Carbon Emissions

- Set Aggressive, yet attainable goals
- Identify a framework for to evaluate progress
- Develop an integrated design team
- Drive efficient operations
- Conduct proper trainings
- Evaluate purchasing policies

Data Center Site Selection

- Access to existing infrastructure
- Renewable energy feasibility
- Building orientation
- Resilience from Climatic Events



Data Collection – Energy Modelling & LCAs

“The up-front design analysis is a fraction of a fraction of the entire build cost, and when done correctly, it increases the profitability of the project, as focus is always on four core pillars during major decisions: scope, schedule, budget and sustainability”

-Karen Petersburg, PowerHouse Data Centers



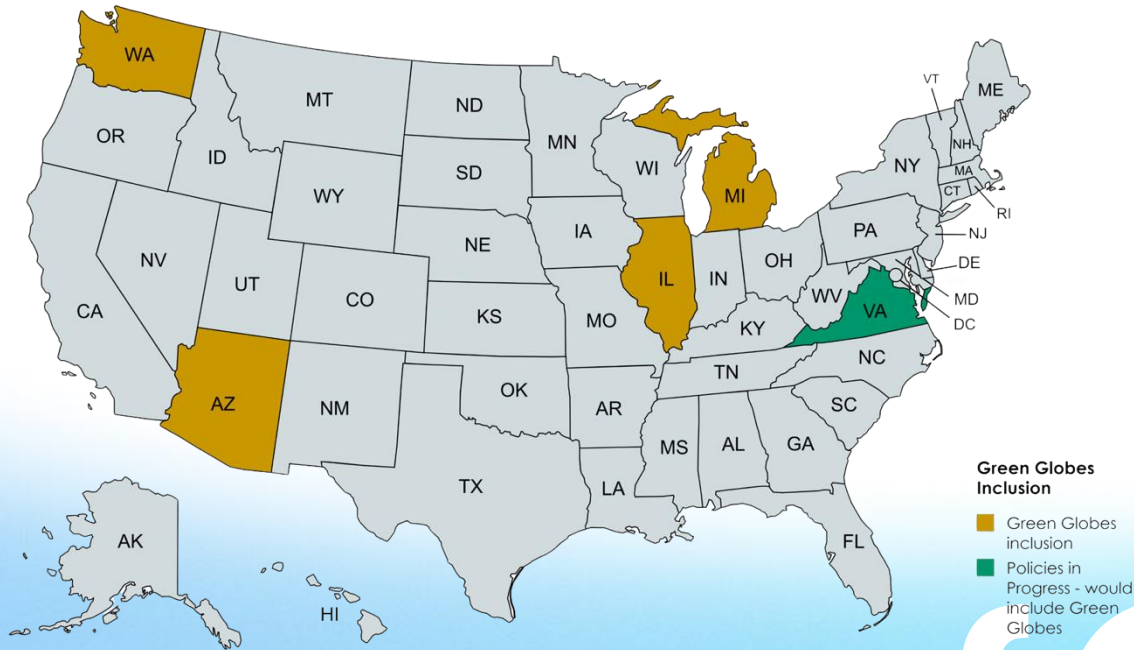
Rendering courtesy of PowerHouse Data Centers

Materials Selection & Sourcing

- Creating sustainable purchasing policies
- Evaluating source and distance travelled
- Requiring Environmental Product Declarations (EPDs) or third-party product certifications
- Selecting low-carbon materials and recycled materials
- Optimize material usage
- Consider product end-of-life

GBI Assessment & Certification Supports Sustainability & ESG Goals

GBI offers personalized guidance and support throughout the assessment process, **multiple compliance pathways** for a **rigorous, not rigid approach**, & matches the data center industry speed to market.



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25

Questions?

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