



Make your IT Carbon-Free

5 steps to data center decarbonization



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Many of our customers have set ambitious targets to reduce or eliminate carbon emissions from their IT. Iron Mountain Data Centers (IMDC) sees supporting and enabling these ambitions as a vital part of its business.

To make this happen, in 2021 IMDC became the only global colocation provider to pledge to use 100% carbon-free electricity, 100% of the time (or #247CFE) by 2040. This means tracking power used against power purchased hour by hour on the same grid. Another way of expressing this hourly tracking is an 'hourly carbon free energy score'.

Achieving 24/7 carbon-free energy is a long and time-intensive process that requires a lot of collaboration, but it is achievable. It will help support decarbonization in all grids, for everyone; a more level playing field for a sustainable future.

This short e-book sets out the steps needed to achieve this level of decarbonization for customer power.

- 1 Invest in clean energy for the long haul, and buy local
- 2 Build a customer-focused framework
- 3 Track sites & build carbon heat maps
- 4 Align with common standards
- 5 Iterative Innovation

“ 24/7 Carbon-free Energy (CFE) means that every kilowatt-hour of electricity consumption is met with carbon free electricity sources, every hour of every day. It is both the end state of a fully decarbonized electricity system, and a transformative approach to energy procurement, supply, and policy design that is critical to accelerating its arrival. ”



**United
Nations**



Invest in clean energy for the long haul, and buy local



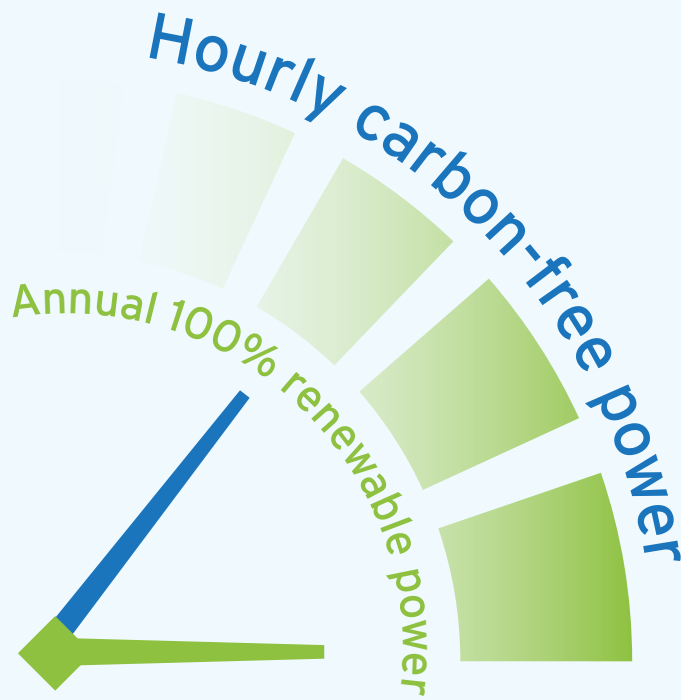
Collaboration is accelerating our progress and the tools we are developing together are available to everyone. You can see it in action in our recent video 'Transforming our Future', which features partners like ClearTrace, Microsoft and Google and explains the processes and collaborations behind the move of data centers going from annual to hourly clean energy.

We recognised in 2017 that customers wanted their data center power to have positive environmental performance, and we established off-take agreements with renewable energy providers to cover our whole operational load. This approach has become popular: the price of renewables has been extremely competitive, and last year nearly 45 GW of renewable power in the US - well over half of the world's corporate clean energy purchases - was contracted to data centers. In 2019 we launched Green Power Pass to pass the benefit of clean power onto customers; GPP is a certificate our customers can use for their environmental reporting to credibly reflect the use of clean power at our facilities.

Power Purchase Agreements and selecting local, quality clean power rate programs where they exist are important demand signals to the market that we need more clean power. Committing to long term offtake from local new projects does more than just secure a credible green power claim, it demonstrates real commitment compared to purchasing certificates on an annual basis.

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Build a customer-focused framework



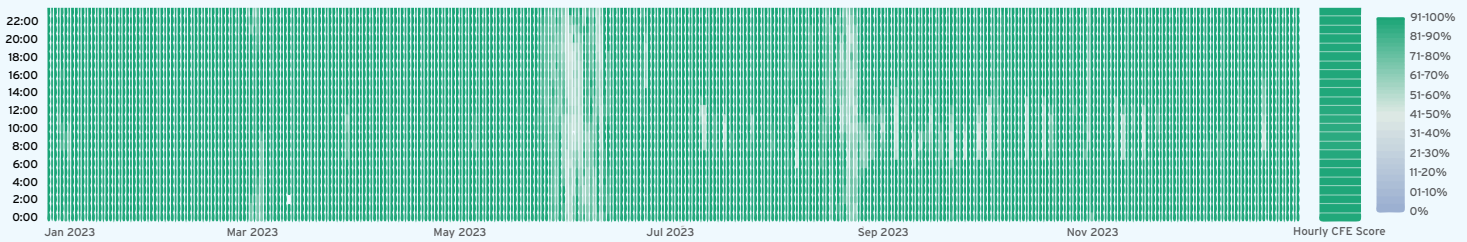
Because we recognize that achieving 24/7 carbon free energy will take time, we remain committed to matching our consumption annually with credible clean energy claims. This 'double guarantee' provides customers what they need today, and enhances their claims as we make progress.

Building on the customer theme, in May 2021 we committed ourselves to further decarbonize our power. This is a natural next step as we are collectively recognizing that annually matching our power load leaves a lot of hours dependent on fossil-based generation. There has been growing support for 24/7 Carbon Free Energy by companies, communities and even governments - and these are data center customers.

This growing number of climate minded organizations will seek providers that enable them to turn their data center footprint into a lever for supporting hour by hour clean energy. We did not abandon our past renewable energy VPPAs, as they play an important role in our overall coverage as we transition to more granular clean energy.

3

Track sites & build carbon heat maps



Tracking in action: In 2023 we made excellent progress in understanding hourly clean energy use across our pilot sites. As this CFE Profile of our US sites in Ohio, Pennsylvania and New Jersey shows, we achieved 99.5%, 99.9%, and 98.5% carbon-free power for January, February and March 2023 respectively. And throughout April 100% of power used was matched with locally produced carbon-free energy each hour of every day.

Generation and consumption tracking is the key - creating time-tagged heat maps that show where our customer's hourly IT load is being matched with clean energy and where the gaps are that we need to cover.

As a first step to this goal, we developed an agreement with RPD Energy and Direct Energy to track hourly renewable energy supply and compare it to our load. We then started working with Cleartrace for our US data centers, and Flexidao in Europe, to capture data on how we are performing and generate traceable, verifiable reporting. This is a gradual but necessary process.

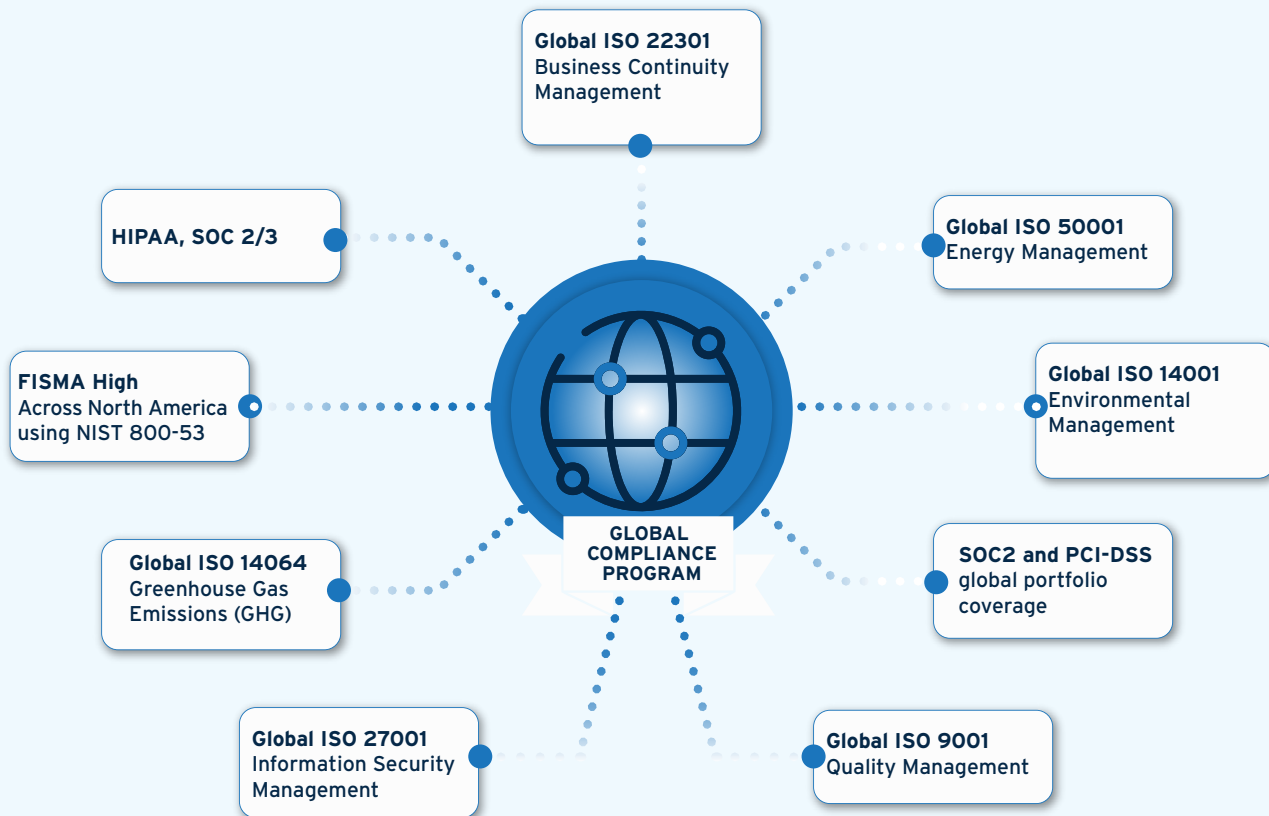
Partners & Associations

Collaboration with sustainability-focused partners is key to making our approach work, as well as working with international associations to share discoveries and help make a bigger difference.



4

Align with common standards



IMDC is currently the only global colocation company that has had its GHG emissions verified by a third party to the ISO 14064 standard.

Iron Mountain has the most comprehensive compliance program in the colocation industry. This is a vital foundation for decarbonization, as third-party assessments and certifications are the basis on which we measure and publish our progress towards our targets.

Our decarbonization performance translates into our customers' published results. They need to be able to trust the performance figures and methodologies we use as they take these figures and put them into their own reports.

Trust is created through transparency and use of common standards. For reporting GHG emissions, we have aligned our efforts with the ISO 14064-1 standard and have our results verified by a third party to confirm our use of

5 Iterative Innovation



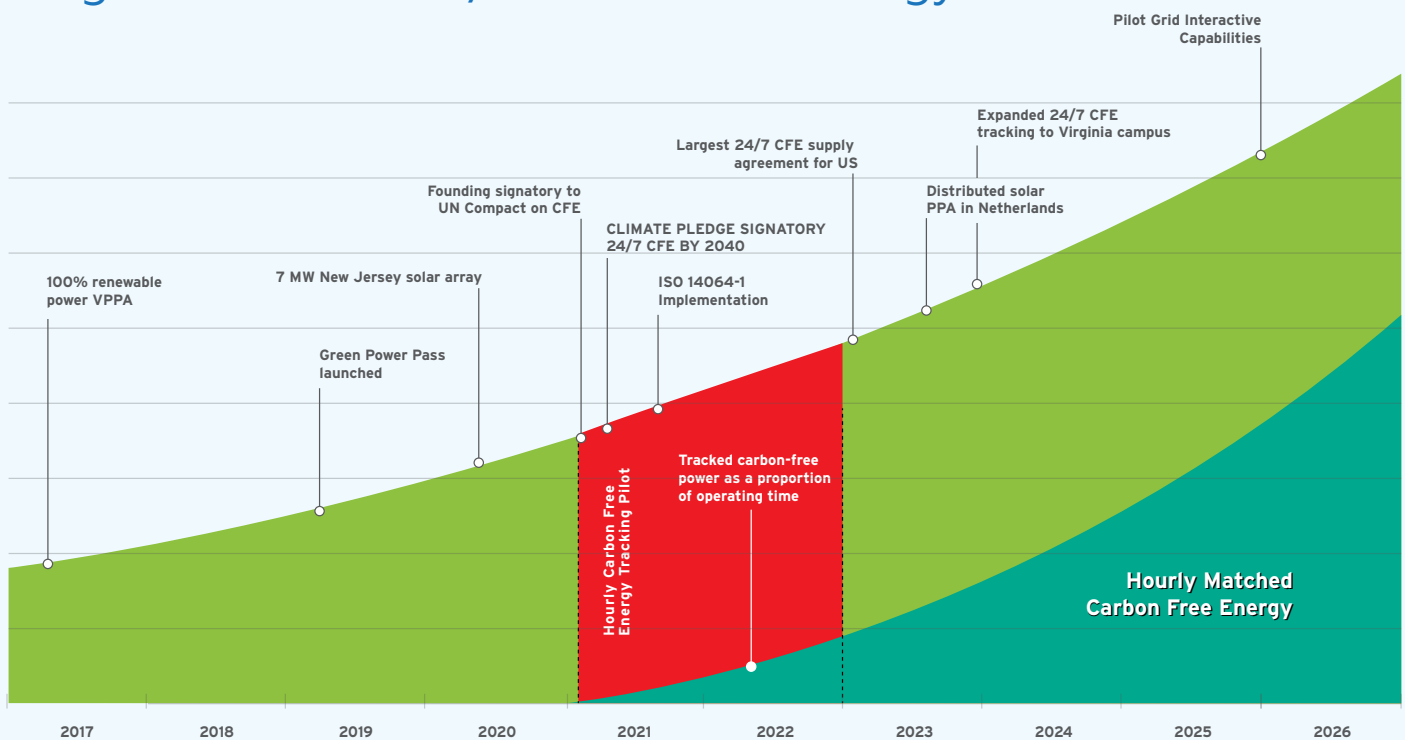
Our innovative 'run of river' hydro development PPA with Rye Development, will ensure that generators are added to dams in Pennsylvania and West Virginia. These have the potential to create up to 150 MW of 24/7/365 customer power over the next ten years.

Purchasing large amounts of power for our customers to use inside our facilities creates opportunities to support new and exciting decarbonization solutions. This may be small, infill projects like our May 2023 Corporate Power Purchase Agreement (CPPA) with Sunrock for solar energy from the port of Rotterdam (4.4 MW) and Oud Gastel (1.3 MW) to our AMS-1 Amsterdam facility, or larger, complex efforts like our innovative June 2023 'run of river' hydro development PPA with Rye Development, to add generators to existing dams in Pennsylvania and West Virginia which could create up to 150 MW of clean power.

Rooftop and ground mounted solar are good examples of mature solutions that are first moves for clean energy in most places around the world, like the largest rooftop solar array of any US data center (9 MW) in our New Jersey facility or our more recent array in Rosendale, NY, which takes our global on-site generation capacity to 21.3 MW.

Tracking progress

Progress towards 24/7 carbon free energy



Decarbonization is a long-term undertaking, but benchmark results have been extremely encouraging. In 2023 we made excellent progress in our initial pilot sites. Since then our carbon-free initiative has expanded and gained even more momentum.

Across the whole of 2023 we achieved 186,457 MWhrs matched with locally produced carbon free energy for our initial five sites in the US and UK. Take a moment to consider that. Clean energy resources like wind, solar and hydro are intermittent, and we're demonstrating that it is possible to match nearly every hour of each day with locally produced carbon free energy. This is an inspiring milestone in the clean energy transition.

This chart shows some of the key points on our journey, including the analysis phase and the ongoing restructuring of our renewable power purchasing agreements to tap into renewable power closer to the point of use.

Be part of the solution

Digitalization may be the key to a sustainable future, but it will take focused action and cooperation to achieve this, and there is no excuse for delay. The infrastructure that supports the digital economy has a very important pioneering role to play in this process, not just in decarbonizing our own industry but also in showing the way for other power-hungry sectors.

We have a long way to go, but hopefully this short e-book shows that we are making progress down the road to the total decarbonization of our customers' IT infrastructure. We want others to join us. By sharing our experiences we hope to explain what works and what doesn't and promote participation from fellow providers and interested customers.

If you are interested in finding out more about decarbonizing data centers to power the digital economy responsibly, please get in touch:

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About Iron Mountain Data Centers

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 90% 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 1,300+ customers in order to build and support their long-term digital transformations within our 5M+ SF global footprint spanning 3 continents. For more information, visit www.ironmountain.com/data-centers.

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