
Big Data Management Meets Big Energy Innovation



WHEN RENEWABLE ENERGY SUPPLY BECOMES MISSION CRITICAL, A LEADING DATA CENTER TURNS TO ENGIE, A LOW-CARBON LEADER, FOR AN INNOVATIVE, CUSTOMER-CENTRIC SOLUTION.

Through a mission to empower people and technology, QTS Data Centers has long made sustainability a key priority and a core value of its operations. After learning of new opportunities to dramatically reduce carbon emissions at its Irving, Texas facility, the multibillion-dollar company made the strategic decision to leverage ENGIE's capabilities to reinforce its commitment to sustainability.

In 2018, QTS announced a 10-year renewable agreement with ENGIE – a deal that would later support a national recognition for green power consumption among data centers and help set the stage for a bold public commitment in 2019.

THE OPPORTUNITY

With global data traffic doubling every four years, data centers are projected to grow exponentially – as is the industry's energy consumption. Today, a typical data center consumes enough energy to constitute 40% of annual operating expenditures. In the next six years, researchers estimate that the sector could use as much as 20% of all available electricity worldwide.

These points underscore the significant opportunity confronting data centers for reducing environmental impact through energy. They also serve as one of the primary reasons why QTS believes the industry has a responsibility to protect Earth's resources through infrastructure development and power procurement initiatives.

In 2018 – to demonstrate its commitment in this regard – QTS set its sights on achieving an ambitious goal:

To join the RE100 by 2019 and publicly commit to procuring 100% renewable energy by 2025.

With this objective, QTS was primed to expand its renewable supply portfolio – and ENGIE was positioned to help.

At the time, the national footprint of QTS anticipated growth on par with industry trends. While the company was ready to transition to a zero-carbon supply, it needed an option that would manage the volumetric and price risks that come with renewable investments.

The decision was made to focus attention on its Irving, Texas site. With a location in the deregulated market of ERCOT – in the state with the most total installed wind-power-generating capacity in the nation – the 700,000 square-foot facility represented significant opportunity as the largest data center in the Southeast.

To support firm uptime commitments, QTS's Irving location already boasted 140 MWs of critical on-site power capacity and up to 48 hours of fuel reserves on-site to meet customer requirements during grid events. Although the company had room to expand on its 54-acre site, exploring off-site options for renewable supply was most appealing.

The company was also interested in marketing its renewable investments. With supply chain sustainability a critical priority for many of its clients – and given the company's ambition to join the RE100 – any solution would need to reinforce the strength of the QTS brand as a low carbon leader.

BRIDGING THE GAP

At the same time QTS heightened its focus on zero-carbon supply, ENGIE was working to bridge the significant gap

between the traditional market offerings available to advance renewable strategies for commercial and industrial customers.

At one end of the spectrum was renewable energy certificates (RECs) to offset greenhouse gas emissions through a fungible and tradable commodity. At the other end was long-term, complex power purchase agreements to support the development of new renewable generation assets.

Reinforcing the company's commitment to shaping a sustainable future, ENGIE took a pioneering step to lead the development of customer-centric renewable solutions that broaden opportunities to support clean energy consumption through standard retail contracts.

With new offerings that included physical green supply and custom-structured solutions, ENGIE was well positioned to help QTS build the right strategy to achieve its specific goals and operational requirements.

To support the company's fiscal and environmentally responsible priorities, ENGIE tailored an easyRE solution for

physical green supply to deliver the following key benefits:

- Renewable power sourced from Flat Top wind project – a 200 MW wind farm located less than 200 miles from QTS's Irving site – via an electricity wholesaler.
- Renewable energy credits tied to the same generation asset, directly supporting the development of this nearby wind energy resource, to meet the contracted 15 MW.
- The ability to make marketing and environmental claims to reinforce the strength of QTS as a sustainable brand.
- Price security with a 100% hedged green block of power.
- Replacement renewable energy certificates, if necessary.
- Traditional retail services, including balancing and scheduling, to manage the risks of price and volume exposure.

The integrated strategy also included access to the ENGIE 20/20 reporting platform, providing benchmarking and reporting intelligence to further support the data center's sustainability program.

ENGIE has since helped QTS procure power from two additional wind resources to meet volume growth and has leveraged the insights available through ENGIE 20/20 to identify opportunities to economically manage changes in load requirements.

PAVING THE WAY

With its Irving data center on renewable supply – in addition to its Chicago and Piscataway locations – QTS now uses more than 304 million kWh of green power annually, representing more than 32% of its total U.S. power needs.

In July 2019, the company ranked No. 12 among the Environmental Protection Agency's Green Power Partnership Top 30 Tech & Telecom listing and No. 4 among all data center companies nationwide. In that same month, QTS affirmed its commitment to procuring 100% of its power from renewable resources by 2025, joining the RE100 and paving the way for others in the industry to leverage their energy profiles to significantly reduce environmental impact.



The QTS Data Centers case study underscores ENGIE's ability to think beyond traditional market offerings to build customer-centric solutions that help companies manage volumetric and price risks while achieving renewable supply targets. Talk to your sales representative today about renewable options suitable for your goals and objectives and see how ENGIE is committed to shaping a more sustainable future for you.



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