BOND SPOTLIGHT

QTS Fayetteville: Microsoft-tied data centre green bond

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SUMMARY

- **A potential USD5.4bn new debt offering to fund a new QTS Fayetteville data centre tied to Microsoft is being marketed to investors following the former's debut high grade bond sale in April 2026.**
- **QTS' current USD4.6bn 5.7% 2036 green bonds (Baa2: Moody's) enjoy a ratings uplift with Microsoft as an off-taker for a 20 year-lease with a 15-year renewal option.**
- **We analyse QTS' sustainability progress and what factors investors should look out for, including more transparency, in advance of a potential new issuance in aid of its Fayetteville campus expansion.**

QTS Fayetteville I DC1-2, LLC (ticker QTSQST), is currently sounding out potential investors for a new USD5.4bn of new debt that may include a USD4.9bn 5-year secured bond and a USD500mn term loan. The proceeds would finance an expansion of its current Fayetteville data centre campus in Georgia, which is leased to Microsoft.[1] The new issuances may be green bonds, like those issued earlier this year, structured in line with QTS' Green Financing Framework. For investors, the prospective green bond and the current QTSQST 10-year secured bond provide a useful lens through which to evaluate the issuer's sustainability performance, and to benchmark its energy and water efficiency against other comparable data centres.[2]

QTS and data centre bonds

QTS Data Centres is a large, privately owned (Blackstone-portfolio) digital infrastructure and data centre operator which designs, builds, and runs hyperscale and colocation centres in the US and Europe.

Figure 1. Bond comparables in the data centre space. RPDLCI bonds are mapped to duration. Source: Bloomberg Finance L.P., accessed 5 Aug 2026.



Current QTSQST bonds trade at a z-spread of 174bps wider than Microsoft (Aaa: Moody's) (see Appendix Table 5 for details of the bonds). QTSQST bonds are one of the few USD green bonds rated investment-grade in this sector. QTS Fayetteville I DC1 2, LLC is a Special Purpose Vehicle (bankruptcy remote) established to own and operate two newly constructed hyperscale data centre buildings of 300+MW located in Atlanta, Georgia developed by sponsor QTS (Quality Tech, LP). The green bond proceeds

[1] "Goldman Pitches $5.4 billion Debt for Microsoft-Tied Data Center", Bloomberg Finance L.P., 29 July 2026.
[2] For a detailed analysis of hyperscaler and data centre debt, please see AFII publication "Data centre debt: bondholder leverage to shape AI energy strategy".

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were allocated to eligible energy-efficiency-related components of the above-mentioned data centres. These are essentially project finance bonds structured with a cash waterfall, a debt service reserve account, and other lender security components. They are backed by cash flows from a 20-year absolute triple net lease with Microsoft, which also holds an option for a 15-year renewal lease option.[3]

Traditional data centre companies such as Equinix and Digital Realty have been issuing a mix of (senior unsecured) bonds and loans (both green-labelled and non-labelled). Equinix and Digital Realty's bonds have historically been conventional senior unsecured bonds, which differ from the structured project finance bonds that QTSQST and its AI-data centre peers have used to finance the buildout of the latest wave of AI data centres in the US.

QTS green financing framework

Table 1. Summary of QTS Jun 2026 and Oct 2023 green financing framework eligible categories for use of proceeds

	2026 Green framework	2023 Green framework
Energy Efficiency	PUE Threshold	PUE Threshold
New data centres	<=1.4	<=1.5
Existing/operational data centers	<=1.4	<=1.5
Retrofits / upgrades	>=2% p.a. efficiency improvement	Same
Green buildings		
LEED (1)	Silver/Gold	Gold/Platinum
BREEAM (2)	Excellent/Outstanding	Excellent/Outstanding
Green Globes (3)	3 or 4	3 or 4
ENERGY STAR (4)	>=75	>=85
Renewable energy	i) Solar/wind/battery storage infrastructure ii) Off-site solar/wind, via long-term offtake, lease or service agreements > 5 yrs iii) Renewable fuels in backup power iv) Purchase of RECs/EACs (Renewable Cert), including carbon credits and offsets.	i) Solar/wind/battery storage infrastructure ii) Off-site solar/wind, via long-term offtake, lease or service agreements > 5 yrs
Sustainable water management	i) On site rainwater harvesting systems ii)Reclaimed water systems/infrastructure iii) Water efficiency upgrades/advanced sub-metering iv) Water efficient cooling systems vi) Low-impact devlopment/ stormwater management infrastructure	Not applicable
(1)https://www.usgbc.org/leed (2) https://breeam.com (3)https://thegbi.org (4) https://www.energystar.gov/buildings/building-recognition		

QTS updated its Green Financing Framework in June 2026.[4] Its debut green bonds were issued in April 2026, likely under the previous 2023 framework. In the new edition, the company highlights the eligible categories for use of proceeds as energy efficiency and renewable energy, in line with Green Bond Principles (and Green Loan Principles). The Power Usage Effectiveness (PUE) requirement for new data centres is required to be less than 1.4 on an annual basis, tightened from 1.5 in the previous version. In addition, existing operational data centres need to have an operational PUE lower than 1.4. PUE is a metric used in the data centre sector to show how efficiently it uses energy. It is calculated using total facility power (all electricity consumed) divided by IT equipment power – meaning that used by servers, storage, and network gear. The lower the PUE, the better the energy efficiency.

[3] Moody's Ratings assigns first-time Baa2 rating to QTS Fayetteville 1 DC1-2,LLC; outlook stable, Moody's 31 Mar 2006.
[4] "QTS Green Finance Framework June 2026", QTS, June 2026.

The water usage of a data centre is not an eligibility consideration in QTS' Green Financing Framework. However, Water Usage Effectiveness (WUE) is mentioned in the green framework and is tied to its operational targets and financing strategy. WUE is a measure of how much water a data centre uses to cool equipment. It is measured by calculating all water used by the data centre for cooling, humidification, and other facility processes divided by the electricity used by servers, storage, and networking equipment. This is described as litres per kilowatt-hour (L/kWh). Having a lower WUE means less water is used per unit of IT energy. A WUE of 0 means that there is no operational water used for cooling. QTS facilities have their own proprietary design and use zero water for cooling.

Measuring QTS' sustainability progress

As QTS continues to expand its data centre footprint, these facilities' use of energy and water, their carbon footprint, and energy efficiency will be closely scrutinised by investors and other stakeholders. PUE and WUE are two simple metrics that cannot capture the full environmental impact of their assets. In this section, we analyse recent trends in data centre emissions intensity, energy intensity, and water consumption as described in QTS' sustainability reports.

As shown in Table 2, most measures have improved over time. Notably, renewable energy sourcing is increasingly reliant on RECs, EACs and PPAs.[5] This means that QTS is buying renewable energy from elsewhere and offsetting on an accounting basis, rather than using renewable energy directly to power its facilities. This seems to be common practice across the industry. Still, the actual renewable energy consumed as a percentage of total energy has fallen from 22% in 2022 to 12% in 2024, and could fall further, depending on the availability of renewables in the areas where QTS is building its data centres.

Table 2 QTS data centre energy and water metrics (FY2022-FY2024). Source: QTS.

QTS	2022	2023	2024
No Data centers operated/under dev		60+	75+
Water			
WUE	1.32	1.12	0.82
Water withdrawal (ML)	NA	2,373	2,323
areas of high water stress	NA	1,172	1,010
Water Discharge (ML)	NA	558	204
areas of high water stress	NA	245	105
Total water consumption (ML)	NA	1,815	2323
DC with water free cooling	9	16	27
Energy			
Average PUE	1.46 (1)	1.43	1.4
Energy consumption (MWh)	2,028,584	2,654,941	4,075,525
% renewables (incl EAC/REC)	59.90%	64.50%	84%
% Renewable in energy consumed	22%	17.70%	12%
Emissions intensity (MT CO2e Scope 1+2 market-based/Rev)	19	19	22
Energy intensity (KWh/sqft)	2.5kWh/Rev	198	262
(1) For US data centres, Europe is 1.68			

In addition, energy and emissions intensity have increased from 2023 to 2024. Carbon intensity reported by QTS uses market-based measures and is adjusted for usage of PPAs, RECs, and EAC contracts[6]. This measure produces a lower intensity figure than the location-based measure, which is driven by the energy mix of the grid. The increasing emissions intensity also reveals that there is a decline in the actual renewable energy procured and consumed onsite.

[5] PPA refers to Power Purchase Agreement, EAC is Energy Attribute Certificate and REC is Renewable Energy Certificate.

QTS targets water inefficiencies in its data centres and is committed to reducing portfolio-wide WUE by 5% annually. Its Freedom Design data centre utilises water-free cooling systems, delivering a WUE of 0. A low pressure pumped refrigerant system is designed to remove heat without consuming water once the data centre is operational. This ensures that there is no water withdrawal, consumption, or discharge in the process of cooling the data centre. **As of end-2024, QTS has increased water-free cooling in 27 of its data centres, up from 16 in the previous year**.

QTS Fayetteville green bonds

The proceeds of QTS' inaugural green bonds were specifically used to refinance the eligible green elements for two Microsoft-leased Fayetteville data centres. QTS does not disclose site-specific performance data, and commercial operations only began in late 2025. However, using QTS' prior disclosures on energy procurement and the use of a water-free cooling system on this campus, we can approximate the current campus' carbon intensity and water intensity.

Because the cooling system is designed to be water-free, the implied WUE for the Fayetteville campus should be at or near zero once fully operational. For location-based carbon intensity, the key determinant will be the emissions profile of the local grid in Fayetteville, Georgia. As a proxy, QTS' Atlanta 2 data centre, also supplied by Georgia Power, shows a grid carbon intensity of about 380 gCO_2/kWh. Public information indicates that Georgia Power will likewise supply the Fayetteville campus.

Compared with other data centres in the region, this appears broadly in line: Google Cloud reports a carbon intensity of 340 gCO_2e/kWh for its US-East2 region in Georgia.[7] Across Google's US regions, reported carbon intensities range from 79 gCO_2e/kWh (Oregon) to 576 gCO_2e/kWh (South Carolina). [8] **If QTS were to match 100% of the Fayetteville campus' electricity consumption with renewable energy through PPAs and/or certificates, it could report a market-based emissions intensity much closer to zero tonnes CO2e per year for this site, even though its location-based intensity would still reflect the Georgia grid mix.**

Data centre comparison

To assess QTS' relative positioning on some of the key metrics for energy and water efficiency, available data for 2024 is mapped against some of the other data centre bond issuers in the sector. A wide range of data centre issuers are included, but each issuer has its own idiosyncrasies and may not be comparable. We have used Digital Realty, Microsoft, Google, and TeraWulf here, due to availability of data and other factors.

TeraWulf has been selected as it is the only other green bond that is senior secured, with the proceeds used to finance a data centre at the Lake Mariner Campus. The bond structure benefits from Google's full guarantee and backstop on lease payments, even though the centre was yet to be built when the bonds were issued. Digital Realty was a traditional data centre builder and operator but has pivoted to construct more AI-oriented data centres recently. Microsoft and Google are good examples of hyperscalers that have seen their AI data centre build out drive their higher carbon footprint.

[7] "Carbon data across Google Cloud regions", Google, 29 July 2026.
[8] "Carbon data across Google Cloud regions", Google, 29 July 2026.

Table 3. Comparison of QTS versus industry data centre peers with energy, carbon, and water metrics. All data is FY25, except for QTS which is FY24 Source: Company Filings.

Issuer (Year)	QTS (2024)	TeraWulf (2025)	Digital Realty (2025)	Microsoft (2025)	Google (2025)	
Average PUE	1.4	1.06	1.38 (1)	1.17 (3)	1.09	
Average WUE	0.82	0	0.59 (2)	0.27 (4)	0.94	(6)
Energy consumption (MWh)	4,075,525	1,365,000	13,129,673	37,461,476	44,046,500	(7)
% renewables	84%	89%	93%	100%	100%	
MtCO2e						
Scope 1	23,734	NA	52,222	170,887	86,100	
Scope 2 (location based)	16,503	NA	3,616,208	12,030,556	15,148,700	
Scope 2 (Market based)	0	NA	463,239	2,707,248	2,815,000	
Scope 1&2 (Location based)	40,237	NA				
Scope 1&2 (Market based)	23,734	NA		2,878,315	2,901,100	
Scope 3	1,239,603	NA	1,420,163	18,243,000	11,572,000	
Emissions intensity (MT CO2e Scope 1+2 market-based/Rev)	22	NA	84	75 (5)	36	(5)
Energy intensity	262 kWh/sqft	NA	2.15/GWh/$1MMrev	1.31/GWh/$1MM rev	328.6tCO2/GWh	
(1) North America is 1.42. (2) Americas is 1. (3) Americas is 1.16. Based on datacentres fully owned by MSFT. (4) Americans is 0.34. Based on data centres						
fully owned by MSFT. (5) For MSFT and Google, this is MTCO2e Scope 1+2+3+market-based/Revenues).						
(6) Calculated by total water consumed by data centres/ total energy consumed by data centres.						
(7) Google breaks out data centre consumption of energy as 42,415,800 MWh						

Table 3 above shows that QTS could improve on its PUE and WUE metrics to align with some of its peers. For some of the other metrics – such as energy or emissions intensity – the reported figures are not directly comparable given the goal of the metrics are different. In the case of emissions intensity, Microsoft and Google have started incorporating Scope 3 into their emissions intensity calculations, while QTS is still utilising Scope 1 and 2 (market-based). For energy intensity calculations, Digital Realty and Microsoft have chosen to show energy efficiency per million dollars of revenue, which is a measure of how well energy is controlled or used as the business grows. Google is showing the amount of greenhouse gas released per GWh of energy that is consumed, which essentially shows how low carbon or how clean energy-oriented its operations are. QTS uses yet another measure which, while similar to that used by Microsoft and Digital Realty, looks at energy efficiency per square foot of space in its data centres.

Table 4. Summary of key issues. Source: AFII.

Key Issues	Analysis Findings/Suggestions	Notes
Quality of green bond label and framework	Fair/ Good	1) Clear objectives to improve energy efficiency as defined by PUE<1.4; 2) Water efficiency is embedded in use of proceeds category although not defined by WUE. 3) Secured green collateral instruments are allocated on or around transaction date.
Expectations for impact reporting	Granular data on secured green bond assets including site-level metrics	Include more granular data with a break down of region if not by specific sites is also helpful.
Could adjustments be made to next green bond issuance?	Yes	Could the company consider carbon efficiency metrics/targets for specific green data centre deals? This does not have to have a company/portfolio wide cover but only specific to a location that is deemed to be more carbon efficient due to energy mix in location.
Potential 5 yr green versus 10 yr green	Considerations include: 1) Structure of new 5-year bond; 2) Lease continuity post maturity/ refinancing options; 3) Pre-construction loan versus current 10-yr bond for refinancing already built DC; 4) Other credit enhancements, if any.	

In Table 4 in the following page, we summarise our assessment of QTSQST's current green bond in key areas including the quality of the green label and our expectations for impact reporting as well as some considerations for future issuances.

Conclusions

The trend for energy and water efficiency in QTS' data centres – including its most recently bond-funded Fayetteville facility – is moving in a positive direction. However, as the company continues to scale up its data centre footprint, renewable energy procurement and location-based grid mix will become critical drivers of its true emissions profile.

For green bond investors assessing QTS, and other data centre issuers, requires looking beyond PUE and label status to focus on actual renewable consumption, emissions, and energy intensity trends, and comparative PUE/WUE performance against large scale peers such as Google and Microsoft. As green bondholders are being asked to finance the expansion of these data centre facilities, they are entitled to expect more granular disclosure —especially at the asset level — on energy intensity, energy procurement plans, the extent of on-site or directly matched renewable energy, and other measures that demonstrate a clear commitment to pursuing low-carbon options.

Appendix

Table 5 Data centre bonds details. Source: Bloomberg Finance L.P., accessed 5 Aug 2026.

Description	ISIN	Ranking/ Collateral	Ratings	Issue Date	Maturity	Currency	Amount Outstanding	ESG Label
QTSQST 5.7 04/15/36	US74751AAA16	Senior Secured	Baa2	15/04/2026	15/04/2036	USD	4,600,000,000	Green
WULF 7 3/4 10/15/30	USU8528KAA61	Senior Secured	Ba2	23/10/2025	15/10/2030	USD	3,200,000,000	Green
MSFT 3.45 08/08/36	US594918BS26	Senior Unsecured	Aaa	08/08/2016	08/08/2036	USD	1,749,327,000	
DLR 4 1/4 11/20/37	XS3233452286	Senior Unsecured	Baa2	20/11/2025	20/11/2037	EUR	800,000,000	Green
GOOGL 4.8 02/15/36	US02079KBM80	Senior Unsecured	Aa2	13/02/2026	15/02/2036	USD	4,250,000,000	
RPLDCI 6.581 05/30/49	US076912AA21	Senior Secured	A+	21/10/2025	30/05/2049	USD	27,293,849,000	

The bonds above represent a selected portion of data centre bonds. For senior secured bonds that are more comparable to QTS' 2036 bond, RPLDCI 2049 bonds have a senior secured structure, but amortising feature which effectively lowers the bond duration to 9.6 years, as opposed to 22 years for maturity. RPLDCI is a JV between Blue Owl and Meta, with Meta as an anchor tenant to the data centre.

Version log

Date	Comment
6 Aug 2026	Document published

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