

Second-Party Opinion

QTS Realty Trust, LLC Green Finance Framework – BX 2023-VLT3 CMBS



Evaluation Summary

Sustainalytics is of the opinion that the QTS Realty Trust, LLC Green Finance Framework – BX 2023-VLT3 CMBS is credible and impactful and aligns with the four core components of the Green Bond Principles 2021 and the Green Loan Principles 2023. This assessment is based on the following:



USE OF PROCEEDS The eligible category for the use of proceeds, Energy and Resource Efficiency, is aligned with those recognized by the Green Bond Principles and the Green Loan Principles. Sustainalytics considers that investments in the eligible category will lead to positive environmental impacts and advance the UN Sustainable Development Goals, specifically SDG 7.



PROJECT EVALUATION AND SELECTION QTS Phoenix has selected a newly constructed data centre property located in Phoenix, Arizona (the Mortgaged Property), in accordance with the eligibility criteria under the Framework, and evaluated the characteristics of the Mortgaged Property against available benchmarks and industry best practices applicable to the design, construction and completion of data centres. QTS Phoenix has mandated subject matter experts to evaluate the environmental and social risks associated with the Project and implement related mitigation measures as needed. The Borrower has communicated that it will provide a property condition report to lenders prior to the loan closing date, identifying the Project’s environmental and social risks and compliance with the Equator Principles. Sustainalytics considers the project selection process in line with market practice.



MANAGEMENT OF PROCEEDS The proceeds from the issuance will be exclusively used to purchase the mortgage loan to refinance the Mortgaged Property. Proceeds will be immediately allocated after the issuance with no flexibility to re-allocate. This is in line with market practice.



REPORTING Citigroup Commercial Mortgage Securities Inc., the Depositor, commits to providing investors with a description of the Mortgaged Property and the details of its sustainability features, including the PUE ratio of less than 1.50, as part of the initial offering document. Given the intent to immediately allocate the proceeds to purchase the mortgage loan and refinance the eligible asset, Sustainalytics views QTS Phoenix’s allocation and impact reporting as aligned with market practice.

Evaluation date	October 6, 2023
QTS Location	Overland Park, KS, US

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Introduction

Quality Technology Services Realty Trust, Inc. (“QTS” or the “Company”) is a provider of hybrid IT infrastructure and data centre services, offering colocation and network services for its clients. Founded in 2003, QTS owns and operates 28 data centre locations spanning more than 9 million square feet of owned mega data centres in the US and the Netherlands. The Company is headquartered in Overland Park, US, and generated nearly USD 638 million in revenue in 2021, with 682 employees worldwide.

QTS Phoenix II DC1, LLC (“QTS Phoenix” or the “Borrower”)¹ is a special purpose vehicle that has developed the QTS Realty Trust, LLC Green Finance Framework – BX 2023-VLT3 CMBS dated October 2023 (the “Framework”) for the issuance of secured green collateral bonds (“BX 2023-VLT3, Commercial Mortgage Pass-Through Certificates” or the “bond”)² issued by Citigroup Commercial Mortgage Securities Inc. (“CCMSI” or the “Depositor”).³ The proceeds of the bond will be used to finance the purchase of a mortgage loan, which will be originated by Citi Real Estate Funding Inc. (or “CREFI”) to refinance the leasehold interest in a newly constructed data centre property (the “Mortgaged Property” or the “Project”), located in Phoenix, Arizona. The Framework defines eligibility criteria in one area:

1. Energy and Resource Efficiency

QTS engaged Sustainalytics to review the Framework and provide a Second-Party Opinion on the Framework’s environmental credentials and its alignment with the Green Bond Principles 2021 (GBP)⁴ and the Green Loan Principles 2023 (GLP).⁵ The Framework will be shared directly with investors.

Scope of work and limitations of Sustainalytics’ Second-Party Opinion

Sustainalytics’ Second-Party Opinion reflects Sustainalytics’ independent⁶ opinion on the alignment of the reviewed Framework with current market standards and the extent to which the eligible project categories are credible and impactful.

As part of the Second-Party Opinion, Sustainalytics assessed the following:

- The Framework’s alignment with the Green Bond Principles 2021, as administered by ICMA, and the Green Loan Principles 2023, as administered by LMA, APLMA and LSTA;
- The credibility and anticipated positive impacts of the use of proceeds; and
- The alignment of the issuer’s sustainability strategy and performance and sustainability risk management in relation to the use of proceeds.

For the use of proceeds assessment, Sustainalytics relied on its internal taxonomy, version 1.14, which is informed by market practice and Sustainalytics’ expertise as an ESG research provider.

As part of this engagement, Sustainalytics held conversations with various members of QTS’s management team to understand the sustainability impact of its business processes and planned use of proceeds, as well as the management of proceeds and reporting aspects of the Framework. QTS representatives have confirmed that: (1) they understand it is the sole responsibility of QTS to ensure that the information provided is complete, accurate and up to date; (2) that they have provided Sustainalytics with all relevant information and (3) that any provided material information has been duly disclosed in a timely manner. Sustainalytics also reviewed relevant public documents and non-public information.

¹ QTS Phoenix II DC1, LLC is majority-owned by Quality Technology Services Realty Trust, Inc.

² QTS has confirmed to Sustainalytics that the offering documents for the bond issuance will specify the type of secured green bond issued, namely a secured green collateral bond per the voluntary process guidelines published in the June 2022 Appendix 1 of the GBP 2021. QTS has additionally committed to ensuring that: i) the collateral underlying the securitization of the secured green collateral bond is aligned with the criteria in the Framework; and ii) there will be no double-counting of the Mortgaged Property and any other outstanding green financing.

³ The Borrower has communicated to Sustainalytics that revolving credit, contingent facilities and multi-tranche loan facilities will not be obtained under the Framework.

⁴ The Green Bond Principles are administered by the International Capital Market Association and are available at <https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/>.

⁵ The Green Loan Principles are administered by the Loan Market Association, Asia Pacific Loan Market Association and Loan Syndications and Trading Association and are available at <https://www.lsta.org/content/green-loan-principles/>.

⁶ When operating multiple lines of business that serve a variety of client types, objective research is a cornerstone of Sustainalytics and ensuring analyst independence is paramount to producing objective, actionable research. Sustainalytics has therefore put in place a robust conflict management framework that specifically addresses the need for analyst independence, consistency of process, structural separation of commercial and research (and engagement) teams, data protection and systems separation. Last but not the least, analyst compensation is not directly tied to specific commercial outcomes. One of Sustainalytics’ hallmarks is integrity, another is transparency.

This document contains Sustainalytics' opinion of the Framework and should be read in conjunction with that Framework.

Any update of the present Second-Party Opinion will be conducted according to the agreed engagement conditions between Sustainalytics and QTS Phoenix II DC1, LLC.

Sustainalytics' Second-Party Opinion, while reflecting on the alignment of the Framework with market standards, is no guarantee of alignment nor warrants any alignment with future versions of relevant market standards. Furthermore, Sustainalytics' Second-Party Opinion addresses the anticipated impacts of eligible projects expected to be financed with bond and loan proceeds but does not measure the actual impact. The measurement and reporting of the impact achieved through projects financed under the Framework is the responsibility of the Framework owner. QTS is encouraged to update the Framework after 24 (twenty-four) months from the evaluation date, if necessary, and seek an update to the Second-Party Opinion to ensure ongoing alignment of the Framework with market standards and expectations.

In addition, the Second-Party Opinion opines on the potential allocation of proceeds but does not guarantee the realised allocation of the bond and loan proceeds towards eligible activities.

No information provided by Sustainalytics under the present Second-Party Opinion shall be considered as being a statement, representation, warrant or argument, either in favour or against, the truthfulness, reliability or completeness of any facts or statements and related surrounding circumstances that QTS has made available to Sustainalytics for the purpose of this Second-Party Opinion.

Sustainalytics' Opinion

Section 1: Sustainalytics' Opinion on the QTS Realty Trust, LLC Green Finance Framework – BX 2023-VLT3 CMBS

Sustainalytics is of the opinion that the QTS Realty Trust, LLC Green Finance Framework – BX 2023-VLT3 CMBS is credible and impactful, and aligns with the four core components of the GBP and GLP. Sustainalytics highlights the following elements of QTS's Green Finance Framework:

- Use of Proceeds:
 - The eligible category, Energy and Resource Efficiency, is aligned with those recognized by the GBP and GLP.
 - Proceeds from the issuance under the Framework will be exclusively used to purchase a whole loan to refinance the Mortgaged Property:
 - The Mortgaged Property consists of a newly constructed data centre located in Phoenix, Arizona with a stabilized design average annual power usage effectiveness ("PUE") of 1.50 or less. Sustainalytics views this eligibility criterion based on the defined PUE threshold to be in alignment with market practice.
- Project Evaluation and Selection:
 - The Borrower has selected the Mortgaged Property, in accordance with the eligibility criteria under the Framework, and evaluated the characteristics of the Mortgaged Property against available benchmarks and industry best practices applicable to the design, construction and completion of data centres, including: i) European Commission Joint Research Institute's Best Practice Guidelines for the EU Code of Conduct on Data Centre Energy Efficiency; ii) the International Energy Agency's Tracking report on Data Centres and Data Transmission Networks; iii) the National Renewable Energy Laboratory's subcontract report on Data Center IT Efficiency Measures; iv) the Climate Neutral Data Centre Pact; and v) the Uptime Institute's Global Data Center Survey.⁷
 - QTS Phoenix has mandated subject matter experts to evaluate the environmental and social risks associated with the Project and implement related mitigation measures as needed. The Borrower has communicated that it will provide a property condition report to lenders prior to the loan closing date, identifying the Project's environmental and social risks and compliance with the Equator Principles. Please refer to Section 2 for more details on these processes.

⁷The noted benchmarks and industry practices will each be in effect as the date hereof.

- Based on the established process for project evaluation and selection, and the presence of risk management processes, Sustainalytics considers this process to be in line with market practice.
- Management of Proceeds:
 - Proceeds from the issuance will be immediately allocated to the mortgage loan used to refinance the project. Neither the Depositor nor the BX 2023-VLT3 Trust will retain the flexibility to reallocate the proceeds or have any temporary use of proceeds.
 - Based on the commitment for full allocation at issuance, Sustainalytics considers this process to be in line with market practice.
- Reporting:
 - The Depositor intends to provide investors with a description of the Mortgaged Property and the sustainability features, including the PUE ratio of less than 1.50, as part of the initial offering document.
 - Considering that the entire proceeds
 - will be immediately used to purchase the mortgage loan and refinance the eligible asset, Sustainalytics considers this process to be in line with market practice.

Alignment with Green Bond Principles 2021 and Green Loan Principles 2023

Sustainalytics has determined that the QTS Realty Trust, LLC Green Finance Framework – BX 2023-VLT3 CMBS aligns with the four core components of the GBP and GLP. For detailed information please refer to Appendix 1: Green Bond/Green Bond Programme External Review Form.

Section 2: Sustainability Strategy of QTS

Contribution to QTS's sustainability strategy

QTS's sustainability strategy focuses on key environmental areas, including: i) GHG emissions reduction; and ii) energy use.

QTS joined the US Department of Energy's Better Climate Challenge in 2022, committing to reduce its GHG emissions by at least 50% by 2032 relative to a 2022 baseline.⁸ To achieve this target, QTS has set a goal of procuring 100% of its power from carbon-free energy sources.⁹

In regard to energy use, QTS has committed to implementing energy efficiency initiatives to all of its facilities. To support this initiative, QTS plans to design 100% of buildings according to green buildings standards and pursue Energy Star certification for all of its eligible facilities.¹⁰ As of 2022, the Company has implemented hot and cold aisle containment, PUE monitoring and blanking panels programmes at all of its facilities to increase the energy efficiency of its data centres.^{11,12} As a result of these initiatives, QTS improved its PUE by 16% by 2022 in comparison to a 2012 baseline.¹³

QTS is a signatory to several industry alliances promoting environmental sustainability initiatives, such as the Clean Energy Buyers Association, RE100 and CERES.^{14,15}

Sustainalytics is of the opinion that the Framework is aligned with QTS's overall sustainability strategy and initiatives and will further the Company's actions on its key environmental priorities.

Approach to managing environmental and social risks associated with the Project

Sustainalytics recognizes that the net proceeds from the bonds obtained under the Framework will be directed towards the Project, which is expected to have a positive environmental impact. However, Sustainalytics is aware that such eligible projects could also lead to negative environmental and social outcomes. Some key environmental and social risks potentially associated with the project could include land use and biodiversity issues associated with large-scale infrastructure development; waste and effluents generated during the

⁸ Judge, P. (2022), "QTS and Sabey join DOE's Better Climate Challenge", Data Center Dynamics, at: <https://www.datacenterdynamics.com/en/news/qts-and-sabey-join-does-better-climate-challenge/>

⁹ QTS Data Centers, "2022 Sustainability Report" at: https://www.qtsdatacenters.com/-/media/files/sustainability-reports/qts_sustainability-report_2022.ashx

¹⁰ Ibid.

¹¹ QTS Data Centers, "2021 ESG Report" at: <https://www.qtsdatacenters.com/resources/brochures/esg-initiatives-2021>

¹² QTS Data Centers, "2022 Sustainability Report" at: https://www.qtsdatacenters.com/-/media/files/sustainability-reports/qts_sustainability-report_2022.ashx

¹³ Ibid

¹⁴ The Clean Energy Buyers Association, "Our Vision", at: <https://cebusers.org/about/vision/>

¹⁵ Ceres, "About us", at: <https://ceres.org/about-us>

construction and operation of data centres; occupational health and safety issues; community relations issues; supply chain environmental impact and cybersecurity issues; and compliance and privacy risks.

Sustainalytics is of the opinion that QTS is able to manage or mitigate potential risks through the implementation of the following:

- The Company has in place an Environmental Health and Safety (EHS) policy applicable to all employees, vendors and contractors.¹⁶ The policy states that QTS will strive to optimize issues related to solid waste and emissions, water and energy usage, chemical and material usage, unsafe occupational behaviours, and occupational accidents. A formally documented Environmental, and Safety Management Program is maintained and implemented throughout the organization to ensure compliance with safety and environmental regulations, including those related to land use and biodiversity.
- To address occupational health and safety hazards, QTS has adopted a management system to ensure adherence to the applicable health and safety standards set out by relevant authorities such as the Occupational Safety and Health Association and Environmental Protection Agency, and relevant laws including the Occupational Safety and Health Act of 1970,¹⁷ which requires employers to provide employees with safe and healthy working environments.¹⁸ Furthermore, QTS's operations in the US and the Netherlands, which are recognized as Designated Countries by the Equator Principles, are subject to robust environmental and social governance systems, legislation and institutional capacity for protecting the environment and communities, including conducting stakeholder engagement for certain new projects.¹⁹
- The Company manages the environmental and social risks associated with its supply chain procurement activities in accordance with its Sustainable Procurement Policy Statement. This policy outlines the Company's objectives in ensuring sustainability practices throughout its supply chain such as evaluating the appointment of sub-contractors through sustainability criteria, requiring the inclusion of environmental policies and imposing best practice standards. In addition, the Company mandates suppliers to minimize social risks by adhering to appropriate labour laws and regulations, as well as to the conventions of the International Labour Organization, the Universal Declaration of Human Rights and the United Nations Guiding Principles on Business and Human Rights. Furthermore, QTS commits to minimizing the environmental risks and impacts of its materials by procuring materials that can be easily recycled at the end of the life cycle and avoiding the use of potentially hazardous materials.²⁰
- Since 2021, QTS has been addressing cybersecurity, compliance and privacy risks by implementing its Converged Security programme, which allows the Company to tackle hybrid physical and cyber threats to its assets. This unified approach was validated by the US Cyber and Infrastructure Security Agency.²¹ Additionally, QTS has a documented cybersecurity incident response programme and conducts annual security awareness training that includes cyber policy training, a cyber threat overview and reporting procedures for all its staff.²²
- To help customers manage their third-party compliance risk, QTS has instituted a compliance programme to provide its clients with independent third-party certifications such as ISO 27001, HITRUST and PCI-DSS, enabling its customers to gain independent verification on QTS's policies, procedures and controls.^{23,24,25,26}

¹⁶ QTS Data Centers, "Corporate EHS Management, at: [https://www.qtsdatacenters.com/-/media/files/legal-terms/s7042_no_3010_1_corporate_ehs_management-\(1\).ashx?la=en&hash=9A91C1A4330A700947E1AFC3839BAAB84AED7E61](https://www.qtsdatacenters.com/-/media/files/legal-terms/s7042_no_3010_1_corporate_ehs_management-(1).ashx?la=en&hash=9A91C1A4330A700947E1AFC3839BAAB84AED7E61)

¹⁷ US Department of Labor, "OSHA of 1970", at: <https://www.osha.gov/laws-regs/oshact/toc>

¹⁸ QTS Data Centers, "2022 Sustainability Report" at: https://www.qtsdatacenters.com/-/media/files/sustainability-reports/qts_sustainability-report_2022.ashx

¹⁹ Equator Principles, "About the Equator Principles", (2022), at: <https://equator-principles.com/about-the-equator-principles>

²⁰ QTS Data Centers, "Corporate Sustainability: Sustainable Procurement Policy Statement", (2020), at: <https://www.qtsdatacenters.com/company/corporate-sustainability>

²¹ US Cybersecurity and Infrastructure Security Agency, "About CISA", at: <https://www.cisa.gov/about-cisa>

²² QTS Data Centers, "2022 Sustainability Report" at: https://www.qtsdatacenters.com/-/media/files/sustainability-reports/qts_sustainability-report_2022.ashx

²³ Ibid

²⁴ ISO, "IEC 27001: Information security management systems", at: <https://www.iso.org/isoiec-27001-information-security.html>

²⁵ HITRUST develops programmes that manage information risk for organizations and throughout third-party supply chains. HITRUST, "About HITRUST", at: <https://hitrustalliance.net/about-hitrust/>

²⁶ PCI Security Standards Council is a forum for payments industry stakeholders to create and promote the adoption of data security standards for safe digital payments. PCI Security Standards Council, "About Us", at: https://www.pcisecuritystandards.org/about_us/

- QTS outlines its approach to ensuring consumer data privacy and confidentiality through its Privacy Policy.²⁷ Additionally, the Company is a participant in the Privacy Shield Program and complies with the California Consumer Privacy Act and the European Commission's General Data Protection Regulation.^{28,29,30,31} Under these regulations, QTS supports its clients to retain control over their data and it maintains security measures to ensure data protection and privacy.

Based on these policies, standards and programmes, Sustainalytics is of the opinion that QTS has implemented adequate measures and is well positioned to manage and mitigate environmental and social risks associated with the eligible category.

Section 3: Impact of Use of Proceeds

The use of proceeds category is aligned with those recognized by the GBP. Sustainalytics has focused below where the impact is specifically relevant in the local context.

Importance of energy efficiency in data centres in the US

Data centres contain a large number of energy-intensive technologies and services such as servers, storage equipment, backups and power cooling infrastructure supporting billions of end users.³² This translates to a significant electricity demand from data centres, recorded at 240-340 terawatt hours or approximately 1% to 1.3% of global electricity use in 2022.^{33,34} McKinsey estimated that US data centres consumed 17 gigawatts (GW) of power in 2022, and are expected to reach 35 GW of consumption by 2030.³⁵

To curb the increase in power consumption of data centres, continual improvements in energy efficiency through advanced servers, storage devices, network switches and infrastructure are required.³⁶ Between 2010 and 2018, despite a six-fold increase in the computing power of data centres and a 10-fold increase in internet traffic, global data centre energy consumption saw only a 6% increase as a result of energy efficiency improvements.³⁷ Nevertheless, considering the annual 20-40% increase in energy use in large data centres in recent years, the International Energy Agency estimates that global data centre energy consumption will increase over the next few years, although the long-term trends remain uncertain.³⁸

There are continued efforts made by the US government to advance energy efficiency in data centres in the country. The Federal Energy Management Program's Center of Expertise for Energy Efficiency in Data Centres provides technical support, tools, analysis, and best practices to contribute to the implementation of energy efficiency projects in data centres.^{39,40} Moreover, the US Environmental Protection Agency's ENERGY STAR programme, with its coverage of data centre facilities and equipment, offers several options to encourage energy efficiency measures.^{41,42}

Given this context, Sustainalytics considers QTS' investments aimed at improving the energy efficiency and PUE of data centres in the US, as contributing to reducing the industry's energy footprint, thereby generating a positive environmental impact.

²⁷ QTS Data Centers, "Privacy Policy" at: <https://www.qtsdatacenters.com/company/legal/privacy-policy>

²⁸ The Privacy Shield Frameworks were designed to provide companies in the US, EU, and Switzerland with a mechanism to comply with data protection requirements when transferring personal data from the EU and Switzerland to the US. US International Trade Administration, "Data Privacy Framework (DPF) Program Overview", at: <https://www.privacyshield.gov/Program-Overview>

²⁹ Ibid.

³⁰ State of California, "California Consumer Privacy Act of 2018", at:

https://leginfo.ca.gov/faces/codes_displayText.xhtml?division=3.&part=4.&lawCode=CIV&title=1.81.5

³¹ European Parliament, "General Data Protection Regulation", (2018), at: <https://gdpr-info.eu/>

³² Ratka, S. et al. (2020), "The nexus between data centres, efficiency and renewables: a role model for the energy transition". Energypost.eu, at: <https://energypost.eu/the-nexus-between-data-centres-efficiency-and-renewables-a-role-model-for-the-energy-transition/>

³³ International Energy Agency, "Data Centers and Data Transmission Networks", (2022), at: <https://www.iea.org/energy-system/buildings/data-centres-and-data-transmission-networks>

³⁴ This excludes energy used for cryptocurrency mining, which was 100-140 terawatt hours in 2021.

³⁵ Bangalore, S. et al. (2023), "Investing in the rising data center economy", McKinsey & Company, at: <https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/investing-in-the-rising-data-center-economy>

³⁶ US Department of Energy, "United States Data Center Energy Usage Report", (2016), at:

<https://betterbuildingsolutioncenter.energy.gov/resources/united-states-data-center-energy-usage-report>

³⁷ Empowered, "The ABCs of data centre energy use", at: <https://empowered.com/the-abcs-of-data-centre-energy-use/>

³⁸ International Energy Agency, "Data Centers and Data Transmission Networks", (2022), at: <https://www.iea.org/energy-system/buildings/data-centres-and-data-transmission-networks>

³⁹ Center of Expertise for Energy Efficiency in Data Centers, "Who We Are", at: <https://datacenters.lbl.gov/who-we-are>

⁴⁰ Federal Energy Management Program, "Energy Efficiency in Data Centers", at: <https://www.energy.gov/eere/femp/energy-efficiency-data-centers>

⁴¹ US Environmental Protection Agency, "Energy Star Expands Efforts to Improve Energy Efficiency of US Data Centers", (2021), at: <https://www.epa.gov/newsreleases/energy-star-expands-efforts-improve-energy-efficiency-us-data-centers>

⁴² Energy Star, "Data Centers", at: https://www.energystar.gov/products/data_centers

Alignment with/contribution to SDGs

The Sustainable Development Goals (SDGs) were set in September 2015 by the United Nations General Assembly and form an agenda for achieving sustainable development by the year 2030. The bond issued under the Framework advances the following SDG and target:

Use of Proceeds Category	SDG	SDG target
Energy and Resource Efficiency	7. Affordable and Clean Energy	7.3 By 2030, double the global rate of improvement in energy efficiency

Conclusion

QTS has developed the QTS Realty Trust LLC Green Finance Framework – BX 2023-VLT3 CMBS under which green bonds are issued by Citigroup Commercial Mortgage Securities Inc. The proceeds of the bonds are used to finance the purchase of a mortgage loan, originated by Citi Real Estate Funding Inc., to refinance the leasehold interest in a newly constructed data centre property, located in Phoenix, Arizona. Sustainalytics considers that the project funded by the green finance proceeds are expected to provide positive environmental impacts.

The QTS Realty Trust LLC Green Finance Framework – BX 2023-VLT3 CMBS outlines a process by which proceeds will be tracked, allocated, and managed, and commitments have been made for reporting on the allocation and impact of the use of proceeds. Furthermore, Sustainalytics believes that the QTS Realty Trust LLC Green Finance Framework – BX 2023-VLT3 CMBS is aligned with the overall sustainability strategy of the Company and that the green use of proceeds category will contribute to the advancement of the UN Sustainable Development Goal 7. Additionally, Sustainalytics is of the opinion that QTS has adequate measures to identify, manage and mitigate environmental and social risks commonly associated with the eligible projects funded by the proceeds.

Based on the above, Sustainalytics is confident that QTS Realty Trust LLC is well positioned to issue green bonds and that the QTS Realty Trust LLC Green Finance Framework – BX 2023-VLT3 CMBS is robust, transparent, and in alignment with the four core components of the Green Bond Principles 2021 and Green Loan Principles 2023.

Appendix

Appendix 1: Green Bond / Green Bond Programme - External Review Form

Section 1. Basic Information

Issuer name:	Citigroup Commercial Mortgage Securities Inc.
Green Bond ISIN or Issuer Green Bond Framework Name, if applicable:	QTS Realty Trust LLC Green Finance Framework – BX 2023-VLT3 CMBS
Review provider's name:	Sustainalytics
Completion date of this form:	October 6, 2023

Section 2. Review overview

SCOPE OF REVIEW

The review:

- assessed the 4 core components of the Principles (**complete review**) and confirmed the alignment with the GBP/SBP/SBG (*delete where appropriate*).
- assessed only some of them (**partial review**) and confirmed the alignment with the GBP/SBP/SBG (*delete where appropriate*); please indicate which ones:
 - Use of Proceeds
 - Process for Project Evaluation and Selection
 - Management of Proceeds
 - Reporting
- assessed the alignment with other regulations or standards (CBI, EU GBS, ASEAN Green Bond Standard, ISO 14030, etc.); please indicate which ones:

ROLE(S) OF INDEPENDENT REVIEW PROVIDER

- Second Party Opinion
- Certification
- Verification
- Scoring/Rating
- Other (please specify):

Does the review include a sustainability quality score?

- Of the issuer
- Of the project
- Of the Framework
- Other (please specify):
- No scoring

ASSESSMENT OF THE PROJECT(S)

Does the review include:

- The environmental and/or social features of the type of project(s) intended for the Use of Proceeds?
- The environmental and/or social benefits and impact targeted by the eligible Green and/or Social Project(s) financed by the Green, Social or Sustainability Bond?
- The potentially material environmental and/or social risks associated with the project(s) (where relevant)?

ISSUER'S OVERARCHING OBJECTIVES**Does the review include:**

- An assessment of the issuer's overarching sustainability objectives and strategy, and the policies and/or processes towards their delivery?
- An identification and assessment of environmental, social and governance related risks of adverse impact through the Issuer's [actions] and explanations on how they are managed and mitigated by the issuer?
- A reference to the issuer's relevant regulations, standards, or frameworks for sustainability-related disclosure and reporting?

CLIMATE TRANSITION STRATEGY**Does the review assess:**

- The issuer's climate transition strategy & governance?
- The alignment of both the long-term and short/medium-term targets with the relevant regional, sector, or international climate scenario?
- The credibility of the issuer's climate transition strategy to reach its targets?
- The level/type of independent governance and oversight of the issuer's climate transition strategy (e.g. by independent members of the board, dedicated board sub-committees with relevant expertise, or via the submission of an issuer's climate transition strategy to shareholders' approval).
- If appropriate, the materiality of the planned transition trajectory in the context of the issuers overall business (including the relevant historical datapoints)?
- The alignment of the issuer's proposed strategy and targets with appropriate science-based targets and transition pathways that are deemed necessary to limit climate change to targeted levels?
- The comprehensiveness of the issuer's disclosure to help investors assess its performance holistically?

Overall comment on this section:**Section 3. Detailed review****1. USE OF PROCEEDS****Does the review assess:**

- the environmental/social benefits of the project(s)?
- whether those benefits are quantifiable and meaningful?
- for social projects, whether the target population is properly identified?

Does the review assess if the issuer provides clear information on:

- the estimated proceeds allocation per project category (in case of multiple projects)?
- the estimated share of financing vs. re-financing (and the related lookback period)?

Overall comment on this section:

The eligible category for the use of proceeds, Energy and Resource Efficiency, is aligned with those recognized by the Green Bond Principles and the Green Loan Principles. Sustainalytics considers that investments in the eligible category will lead to positive environmental impacts and advance the UN Sustainable Development Goals, specifically SDG 7.

2. PROCESS FOR PROJECT EVALUATION AND SELECTION**Does the review assess:**

- whether the eligibility of the project(s) is aligned with official or market-based taxonomies or recognised international standards? Please specify which ones.
- whether the eligible projects are aligned with the overall sustainability strategy of the issuer and/or if the eligible projects are aligned with material ESG-related objectives in the issuer's industry?
- the process and governance to set the eligibility criteria including, if applicable, exclusion criteria?
- the processes by which the issuer identifies and manages perceived social and environmental risks associated with the relevant project(s)?
- any process in place to identify mitigants to known material risks of negative social and/or environmental impacts from the relevant project(s)?

Overall comment on this section:

QTS Phoenix has selected the Mortgaged Property, in accordance with the eligibility criteria under the Framework, and evaluated the characteristics of the Mortgaged Property against available benchmarks and industry best practices applicable to the design, construction and completion of data centres. QTS Phoenix has mandated subject matter experts to evaluate the environmental and social risks associated with the project and implement related mitigation measures as needed. The Borrower has communicated that it will provide a Property Condition Report to lenders prior to the loan closing date, identifying the Project's environmental and social risks and compliance with the Equator Principles. Sustainalytics considers the project selection process in line with market practice.

3. MANAGEMENT OF PROCEEDS**Does the review assess:**

- the issuer's policy for segregating or tracking the proceeds in an appropriate manner?
- the intended types of temporary investment instruments for unallocated proceeds?
- Whether an external auditor will verify the internal tracking of the proceeds and the allocation of the funds?

Overall comment on this section:

The proceeds from the issuance will be exclusively used to purchase a mortgage loan to refinance the Mortgaged Property. Proceeds will be immediately allocated after the issuance with no flexibility to re-allocate. This is in line with market practice.

4. REPORTING**Does the review assess:**

- the expected type of allocation and impact reporting (bond-by-bond or on a portfolio basis)?
- the frequency and the means of disclosure?
- the disclosure of the methodology of the expected or achieved impact of the financed project(s)?

Overall comment on this section:

Citigroup Commercial Mortgage Securities Inc., the Depositor, commits to provide investors with a description of the Mortgaged Property and the details of its sustainability features, including the PUE ratio of less than

1.50, as part of the initial offering document. Given the intent to immediately allocate the proceeds to purchase the whole loan and refinance the eligible asset, Sustainalytics views QTS Phoenix's allocation and impact reporting as aligned with market practice.

Section 4. Additional Information

Useful links (e.g. to the external review provider's methodology or credentials, to the full review, to issuer's documentation, etc.)

Analysis of the contribution of the project(s) to the UN Sustainable Development Goals:

Additional assessment in relation to the issuer/bond framework/eligible project(s):

ABOUT ROLE(S) OF INDEPENDENT REVIEW PROVIDERS AS DEFINED BY THE GBP

- i. **Second-Party Opinion:** An institution with environmental expertise, that is independent from the issuer may issue a Second-Party Opinion. The institution should be independent from the issuer's adviser for its Green Bond framework, or appropriate procedures, such as information barriers, will have been implemented within the institution to ensure the independence of the Second-Party Opinion. It normally entails an assessment of the alignment with the Green Bond Principles. In particular, it can include an assessment of the issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability, and an evaluation of the environmental features of the type of projects intended for the Use of Proceeds.
- ii. **Verification:** An issuer can obtain independent verification against a designated set of criteria, typically pertaining to business processes and/or environmental criteria. Verification may focus on alignment with internal or external standards or claims made by the issuer. Also, evaluation of the environmentally sustainable features of underlying assets may be termed verification and may reference external criteria. Assurance or attestation regarding an issuer's internal tracking method for use of proceeds, allocation of funds from Green Bond proceeds, statement of environmental impact or alignment of reporting with the GBP, may also be termed verification.
- iii. **Certification:** An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds certified against a recognised external green standard or label. A standard or label defines specific criteria, and alignment with such criteria is normally tested by qualified, accredited third parties, which may verify consistency with the certification criteria.
- iv. **Green Bond Scoring/Rating:** An issuer can have its Green Bond, associated Green Bond framework or a key feature such as Use of Proceeds evaluated or assessed by qualified third parties, such as specialised research providers or rating agencies, according to an established scoring/rating methodology. The output may include a focus on environmental performance data, the process relative to the GBP, or another benchmark, such as a 2-degree climate change scenario. Such scoring/rating is distinct from credit ratings, which may nonetheless reflect material environmental risks.

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These are based on information made available by the issuer and therefore are not warranted as to their merchantability, completeness, accuracy, up-to-dateness or fitness for a particular purpose. The information and data are provided "as is" and reflect Sustainalytics' opinion at the date of their elaboration and publication. Sustainalytics accepts no liability for damage arising from the use of the information, data or opinions contained herein, in any manner whatsoever, except where explicitly required by law. Any reference to third party names or Third Party Data is for appropriate acknowledgement of their ownership and does not constitute a sponsorship or endorsement by such owner. A list of our third-party data providers and their respective terms of use is available on our website. For more information, visit <http://www.sustainalytics.com/legal-disclaimers>.

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Sustainalytics, a Morningstar Company, is a leading ESG research, ratings and data firm that supports investors around the world with the development and implementation of responsible investment strategies. For more than 30 years, the firm has been at the forefront of developing high-quality, innovative solutions to meet the evolving needs of global investors. Today, Sustainalytics works with hundreds of the world’s leading asset managers and pension funds who incorporate ESG and corporate governance information and assessments into their investment processes. Sustainalytics also works with hundreds of companies and their financial intermediaries to help them consider sustainability in policies, practices and capital projects. With 17 offices globally, Sustainalytics has more than 1500 staff members, including more than 500 analysts with varied multidisciplinary expertise across more than 40 industry groups.

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