# Second-Party Opinion

# **Vantage Green Finance Framework**

### **Evaluation Summary**

Sustainalytics is of the opinion that the Vantage Green Finance Framework 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 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 Vantage's Green Finance Team is responsible for selecting the eligible green projects in accordance with the criteria outlined in the Vantage Green Finance Framework and evaluating the characteristics of the projects against benchmarks and industry practices applicable to the design, construction and completion of data centres. Vantage's Green Finance Team will also evaluate the environmental and social risks associated with the projects and implement related mitigation measures through a formal risk management process. Sustainalytics considers that the project selection process aligns with market practice.



**MANAGEMENT OF PROCEEDS** Vantage's Green Finance Team is responsible for tracking and managing the use of proceeds using a portfolio approach. Secured green collateral bonds issued under the Framework will effectively achieve full allocation at issuance. For other issuances, Vantage intends to allocate proceeds within 36 months of the respective issuance date. Vantage has communicated that it will track the proceeds using an internal tracking system and that there will be ongoing matching of proceeds to eligible projects. Unallocated funds will be held in reserve until an eligible use of proceeds is identified. This is in line with market practice.



**REPORTING** Vantage commits to report on the allocation of the proceeds and the corresponding environmental impact in qualitative and quantitative terms to the relevant stakeholders on an annual basis and within one year of transaction closing, until full allocation of proceeds. Sustainalytics views Vantage's allocation and impact reporting as aligned with market practice.



Evaluation date	March 28, 2024 <sup>1</sup>
Issuer Location	Denver, CO, USA

#### **Report Sections**

Introduction2	
Sustainalytics' Opinion 3	

For inquiries, contact the Sustainable Corporate Solutions project team:

#### John-Paul Iamonaco (Toronto)

Project Manager john-paul.iamonaco@sustainalytics.com (+1) 416 861 0403

## Han Xing (Toronto)

**Project Support** 

#### Diego Gomez (London)

Client Relations susfinance.emea@sustainalytics.com (+44) 20 3880 0193

<sup>&</sup>lt;sup>1</sup> This document updates the Second-Party Opinion originally provided by Sustainalytics in September 2023.



# Introduction

Vantage Data Centers ("Vantage" or "the Company") is a data centre management company headquartered in Santa Clara, California, United States. Vantage develops and operates data centres in more than 18 countries.

Vantage has developed the Vantage Green Finance Framework dated March 2024<sup>2</sup> (the "Framework"), under which the Company and its subsidiaries, including special-purpose vehicles,<sup>3</sup> intend to obtain green loans,<sup>4</sup> issue green bonds<sup>5</sup> and other financial instruments,<sup>6</sup> and use the proceeds to finance or refinance, in whole or in part, expenditures related to the development of data centre infrastructure developed or operated by the Company in the US, Canada, UK, Ireland, Germany, Switzerland, Poland, Italy or South Africa (the "Projects"). The Framework defines eligibility criteria in one area:

#### 1. Energy Efficiency

Vantage 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) and Green Loan Principles 2023 (GLP).

#### Scope of work and limitations of Sustainalytics' Second-Party Opinion

Sustainalytics' Second-Party Opinion reflects Sustainalytics' independent<sup>7</sup> 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 1.16, 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 Vantage'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. Vantage representatives have confirmed that: (1) they understand it is the sole responsibility of Vantage 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.

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

<sup>&</sup>lt;sup>2</sup> The Vantage Green Finance Framework 2024 will be made available on Vantage's website at: https://vantage-dc.com/

<sup>&</sup>lt;sup>3</sup> Vantage Data Centers has communicated to Sustainalytics that it will have operational control over the issuance process of its subsidiaries and special-purpose entities as it pertains to any financing under the Vantage Green Finance Framework.

<sup>&</sup>lt;sup>4</sup> The Company has communicated to Sustainalytics that the green loans obtained under Framework will be limited to: i) term loans, which may have multi-tranche facilities exclusively aimed at financing the project costs; and ii) revolving credit for which the Company commits to ensuring annual allocation reporting to lenders until loan maturity.

<sup>&</sup>lt;sup>5</sup> The Framework allows for the issuance of green securitizations. In such cases, the Company has confirmed to Sustainalytics that the offering documents for each bond issuance will specify the type of secured green bond issued, namely a secured green standard bond or a secured green collateral bond per the voluntary process guidelines published in the June 2022 Appendix 1 of the GBP 2021. For such issuances, the Company has additionally committed to ensuring that: i) the proceeds of a secured green standard bond are allocated to eligible projects; and ii) the collateral underlying the securitization of a secured green collateral bond is aligned with the criteria in the Framework. Vantage also commits to ensuring no double-counting of eligible projects under the secured green standard bond, secured green collateral bond and any other outstanding green financing. <sup>6</sup> Sustainalytics has reviewed just those instruments that are specified in the Framework.

<sup>&</sup>lt;sup>7</sup> 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.



Any update of the present Second-Party Opinion will be conducted according to the agreed engagement conditions between Sustainalytics and Vantage.

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.

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 Vantage has made available to Sustainalytics for the purpose of this Second-Party Opinion.

# Sustainalytics' Opinion

### Section 1: Sustainalytics' Opinion on the Vantage Green Finance Framework

Sustainalytics is of the opinion that the Vantage Green Finance Framework is credible and impactful and aligns with the four core components of the GBP and GLP. Sustainalytics highlights the following elements of the Framework:

- Use of Proceeds:
  - The eligible category Energy Efficiency is aligned with those recognized by the GBP and GLP.
  - Vantage has established a two-year lookback period for its refinancing activities, which Sustainalytics considers to be aligned with market practice.
  - The Company intends to finance costs related to the design, construction and completion of data centres in the US, Canada, UK, Ireland, Germany, Switzerland, Poland, Italy and South Africa with a power usage effectiveness (PUE) of 1.5 or below.<sup>8</sup> Additionally, Sustainalytics notes the following:
    - Sustainalytics views these investments as aligned with market practice based on the defined PUE threshold.
- Project Evaluation and Selection:
  - Vantage's Green Financing Team, consisting of members from its Capital Markets Team, ESG Reporting Team, New Site Development Team and Design Team, is responsible for selecting the eligible projects in accordance with the Framework criteria.
  - The Green Financing Team is also responsible for identifying and mitigating environmental and social risks associated with the financed projects by ensuring that eligible projects adhere to local regulations and Vantage's internal ESG policies. Please refer to Section 2 for more details on these processes.
  - Based on the established process for the Project selection and the presence of risk management processes, Sustainalytics considers this process to be in line with market practice.
- Management of Proceeds:
  - Vantage has communicated to Sustainalytics that the net proceeds will be used exclusively and directly for its portfolio of green investments. This portfolio is selected by the Green Financing Team according to the eligibility criteria outlined in the Framework.
  - Sustainalytics notes that the secured green collateral bonds issued under the Framework will
    effectively achieve full allocation at issuance. For other issuances, Vantage has communicated
    to Sustainalytics that it intends to allocate proceeds within 36 months of the respective issuance
    date. Unallocated funds will be held in reserve until an eligible use of proceeds is identified. Any

<sup>&</sup>lt;sup>8</sup> The PUE of 1.5 or below applies to existing, retrofitted and newly built data centres and is based on tenant utilization that is great than 50% of the available megawatt capacity of the data centre.



- projects contained in the portfolio that no longer meet the eligibility criteria will be replaced with eligible green projects.
- Vantage's Green Financing Team will be responsible for tracking and managing the use of proceeds of the green financing. A third-party auditor may be used to verify the internal tracking and allocation of proceeds.
- Based on the presence of an internal tracking system and the disclosure of the temporary use of proceeds, Sustainalytics considers this process to be in line with market practice.

#### Reporting:

- Vantage commits to provide an annual report to relevant stakeholders on the allocation of the net proceeds and the corresponding qualitative and quantitative environmental impacts of the Projects within one year of transaction closing. Such reports will continue until full allocation of all proceeds has been achieved.
- Vantage has communicated to Sustainalytics that impact reporting will include information on the actual PUE of the financed data centres.
- Based on these commitments to allocation and impact reporting, 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 Vantage Green Financing Framework aligns with the four core components of the GBP and GLP.

## Section 2: Sustainability Strategy of Vantage Data Centers

#### Contribution to Vantage's sustainability strategy

Vantage focuses on the following environmental areas as its guiding principles for its sustainability strategy: i) reducing GHG emissions to achieve net zero carbon emissions; ii) reducing energy use and decarbonizing its energy supply; iii) minimizing water use and prioritizing the use of recycled water; iv) reducing waste from construction and operations and diverting waste from landfills; and v) engaging with communities to proactively address local needs.<sup>9</sup>

Vantage has committed to reaching net zero carbon emissions for its scope 1 and 2 emissions by 2030 and scope 3 emissions by 2040. To track its 2030 emission targets, Vantage defined baselines in 2021 for scope 1 and 2 emissions, refined the data collection methodology and completed a high-level screening of scope 3 emissions. Vantage intends to achieve its 2030 carbon emission targets through procurement of renewable energy, reduction in generator fuel use, transitioning to renewable fuels, architectural evaluation of new projects and improving the design and operational energy efficiency of its data centres.<sup>10</sup> In 2022, the Company further extended the carbon emission reduction target to reach net zero by 204011 and signed the Climate Pledge<sup>12</sup> and the EU Climate Neutral Data Centre Pact<sup>13</sup> to further reduce the environmental impact of its data centres. 14 For example, the California, Virginia and Quebec City data centres have obtained USD 728 million in green funding. 15 Vantage has communicated to Sustainalytics that its data centre facilities at CWL are expected to use 100% renewable electricity until 2025. Additionally, the Santa Clara data centre will utilize 100% renewable energy through the procurement of renewable energy certificates. 16 Furthermore, the Company deploys policies and programmes to enable waste diversion during the construction phase, targets an annualized design PUE under 1.26, employs closed-loop chilled water systems for which the WUE is virtually zero, uses renewable fuel where possible and implements run-time reduction measures in backup generators to reduce emissions from fuel use.<sup>17</sup>

Sustainalytics is of the opinion that the Vantage Green Finance Framework is aligned with the Company's overall sustainability strategy and initiatives, and will further the Company's action on its key environmental priorities.

<sup>&</sup>lt;sup>9</sup> Vantage, "2022 ESG Report", at: <a href="https://vantage-dc.com/wp-content/uploads/2023/09/2022-ESG-Report-Vantage-Data-Centers.pdf">https://vantage-dc.com/wp-content/uploads/2023/09/2022-ESG-Report-Vantage-Data-Centers.pdf</a>

<sup>10</sup> Ibid.

<sup>&</sup>lt;sup>11</sup> Ibid.

<sup>&</sup>lt;sup>12</sup> The Climate Pledge, "Be the planet's turning point", at: <a href="https://www.theclimatepledge.com/">https://www.theclimatepledge.com/</a>

<sup>13</sup> Climate Neutral Data Center, "Climate Neutral Data Centre Pact", at: https://www.climateneutraldatacentre.net/

<sup>&</sup>lt;sup>14</sup> Vantage shared these sustainability initiatives confidentially.

<sup>15</sup> Vantage, "2022 ESG Report", at: https://vantage-dc.com/wp-content/uploads/2023/09/2022-ESG-Report-Vantage-Data-Centers.pdf

<sup>&</sup>lt;sup>16</sup> Ibid.

<sup>&</sup>lt;sup>17</sup> Ibid.



#### Approach to managing environmental and social risks associated with the financed projects

Sustainalytics recognizes that the proceeds from the instruments issued under the Framework will be directed towards eligible projects that are 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 possibly associated with the eligible projects may include issues involving: i) land use and biodiversity issues associated with large-scale infrastructure development; ii) emissions, effluents and waste generated in construction activities and operation of data centres; iii) occupational health and safety; iv) supply chain environmental impact; v) community relations; vi) cybersecurity; and vii) data privacy.

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

- To mitigate social and environmental risks associated with financed projects, Vantage has
  established management systems that are certified to ISO 9001 for quality management,<sup>18</sup>
  ISO 14001 for environmental management,<sup>19</sup> ISO/IEC 27001 for information security, cybersecurity
  and privacy protection,<sup>20</sup> ISO 45001 for occupational health and safety<sup>21</sup> and ISO 50001 for energy
  management.<sup>22, 23</sup>
- To manage land use and biodiversity issues associated with large-scale infrastructure development, Vantage has communicated to Sustainalytics that the Company complies with relevant legislation and regulations related to biodiversity in all countries where the Company operates. Such regulations include the US National Environment Policy Act, which addresses biodiversity-related risks by requiring environmental impact assessments for large-scale infrastructure projects,<sup>24</sup> and the UK Environmental Act 2021, which outlines biodiversity net gain requirements.<sup>25</sup>
- To address the risks related to emissions, effluents and waste generated in construction activities and the operation of data centres, Vantage endeavours to divert the waste from landfills and reduces waste generation during construction and operation.<sup>26</sup> Project-specific waste management plans are currently being developed. The Company performs feasibility studies to track waste streams and achieve zero-waste certification, wherever possible.<sup>27</sup> Vantage has communicated to Sustainalytics that it ensures compliance with the relevant regulations in all countries where the Company operates, such as the Canadian Environmental Protection Act which addresses pollution prevention, and toxic substance management in Canada.<sup>28</sup>
- Regarding risks associated with occupational health and safety, Vantage has developed the Vision Zero programme, which includes leveraging its Environmental Health and Safety policy as guidance for decision making. Through this programme, the Company mandates maturity assessments at all facilities by profiling risks for each location based on standardized analyses which include adherence to local regulations and available safety resources. Vantage conducts these safety assessments daily, from which the Company develops strategic plans and creates a standardized ESG process to be replicated across the global organization with local adaptations.<sup>29,30</sup>
- Regarding risks associated with supply chain environmental impacts, Vantage has developed a
  global third-party risk management programme, through which it identifies, assesses and manages
  environmental and social risks when the Company engages with third parties, including new
  suppliers.<sup>31, 32</sup> Vantage manages the environmental risks associated with its supply chain through a
  policy aimed at reducing the carbon footprint of its facilities and procurement operations, by working
  directly with its suppliers on waste and emissions reduction.<sup>33</sup>

<sup>&</sup>lt;sup>18</sup> ISO, "ISO 9001:2015", at: <a href="https://www.iso.org/standard/62085.html">https://www.iso.org/standard/62085.html</a>

<sup>&</sup>lt;sup>19</sup> ISO, "ISO 14001:2015", at: <a href="https://www.iso.org/standard/60857.html">https://www.iso.org/standard/60857.html</a>

<sup>&</sup>lt;sup>20</sup> ISO/IEC, "27001:2022", at: https://www.iso.org/standard/27001

<sup>&</sup>lt;sup>21</sup> ISO, "ISO 45001 Briefing notes", at: <a href="https://www.iso.org/files/live/sites/isoorg/files/archive/pdf/en/iso\_45001\_briefing\_note.pdf">https://www.iso.org/files/live/sites/isoorg/files/archive/pdf/en/iso\_45001\_briefing\_note.pdf</a>

<sup>&</sup>lt;sup>22</sup> ISO. "ISO 50001", at: https://www.iso.org/iso-50001-energy-management.html

<sup>&</sup>lt;sup>23</sup> Vantage, "2022 ESG Report", at: https://vantage-dc.com/wp-content/uploads/2023/09/2022-ESG-Report-Vantage-Data-Centers.pdf

<sup>&</sup>lt;sup>24</sup> US Environmental Protection Agency, "What is the National Environmental Policy Act?", at: <a href="https://www.epa.gov/nepa/what-national-environmental-policy-act">https://www.epa.gov/nepa/what-national-environmental-policy-act</a>

<sup>&</sup>lt;sup>25</sup> UK Government, "Environment Act 2021", at: <a href="https://www.legislation.gov.uk/ukpga/2021/30/enacted#">https://www.legislation.gov.uk/ukpga/2021/30/enacted#</a>

<sup>&</sup>lt;sup>26</sup> Vantage, "2022 ESG Report", at: <a href="https://vantage-dc.com/wp-content/uploads/2023/09/2022-ESG-Report-Vantage-Data-Centers.pdf">https://vantage-dc.com/wp-content/uploads/2023/09/2022-ESG-Report-Vantage-Data-Centers.pdf</a>

<sup>&</sup>lt;sup>28</sup> Government of Canada, "Canadian Environmental Protection Act: plans and policies", at: <a href="https://www.canada.ca/en/environment-climate-change/services/canadian-environmental-protection-act-registry/plans-policies.html">https://www.canada.ca/en/environment-climate-change/services/canadian-environmental-protection-act-registry/plans-policies.html</a>

<sup>&</sup>lt;sup>29</sup> Vantage, "2022 ESG Report, A global vision locally adapted", at: <a href="https://vantage-dc.com/wp-content/uploads/2023/09/2022-ESG-Report-Vantage-Data-Centers.pdf">https://vantage-dc.com/wp-content/uploads/2023/09/2022-ESG-Report-Vantage-Data-Centers.pdf</a>

<sup>&</sup>lt;sup>30</sup> Vantage has communicated to Sustainalytics that as of August 2023, Vantage has conducted 6,946 safety inspections globally.

<sup>31</sup> Vantage, "2022 ESG Report", at: https://vantage-dc.com/wp-content/uploads/2023/07/ESG-Report-2022\_Vantage-Data-Centers.pdf

<sup>&</sup>lt;sup>32</sup> Vantage has communicated to Sustainalytics that the Company evaluates environmental and social risks of new suppliers through its global third-party risk management programme.

<sup>33</sup> Vantage, "2022 ESG Report", at: https://vantage-dc.com/wp-content/uploads/2023/09/2022-ESG-Report-Vantage-Data-Centers.pdf



- To manage risks related to impacts on communities, the Company's public policy teams engage with stakeholders to address questions and collaborate on implemented solutions.<sup>34</sup> Vantage engages local land use counsels, local governments and community affairs consultants at all project locations to review local requirements, support permitting, and support engagement with local stakeholders. Vantage also incorporates community-friendly measures as part of its standard facility design, including minimizing water usage, aesthetically attractive building design, and noise dampening.
- To manage cybersecurity-related risks, Vantage has developed the Information Security Policy, which
  outlines information security commitments and the Company's compliance with the PCI DSS
  standard.<sup>35</sup> Under the Information Security Policy, the Company has established the Information
  Security Management System to maintain the PCI DSS standard, which is also audited on an annual
  basis by an external firm.<sup>36</sup>
- With regard to privacy risks, Vantage complies with the local laws and regulations regarding antibribery, data privacy, and human rights. The Company also has a Code of Conduct in place which includes privacy and data protection and is mandatory for all partners, suppliers and vendors.<sup>37</sup>
- Sustainalytics further notes that projects financed under the Framework are based in Canada, Germany, Ireland, Italy, Poland, Switzerland, UK and US, which are recognized as Designated Countries under the Equator Principles. This indicates the presence of robust environmental and social governance systems, legislation and institutional capacity for protecting the environment and communities, including stakeholder engagement for certain new projects.<sup>38</sup>

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

### **Section 3: Impact of Use of Proceeds**

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

#### Importance of energy efficiency in data centres in the US, Canada and Europe

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.<sup>39</sup> This translates into significant electricity demand from data centres, recorded at 240-340 terawatt hours or 1-1.3% of global electricity use in 2022.<sup>40</sup> US data centres consumed an estimated 17 gigawatts of global electricity use in 2022 and are expected to reach 35 GW of consumption by 2030.<sup>41</sup> In Canada, data centres account for approximately 1% of the country's total electricity consumption each year, and this demand is increasing rapidly.<sup>42</sup> In the EU, data centres consume 45-65 TWh of electricity, accounting for 1.8% to 2.6% of the bloc's total electricity use as of 2022.<sup>43</sup>

Continual improvements in energy efficiency through advanced servers, storage devices, network switches and infrastructure are required to curb the increase in power consumption of data centres.<sup>44</sup> Despite a sixfold increase in the computing power of data centres and a tenfold increase in internet traffic, the global energy consumption of data centres increased by only 6% between 2010 and 2018, thanks to energy efficiency

<sup>34</sup> Ibid.

<sup>&</sup>lt;sup>35</sup> PCI Security Standards Council, "PCI DSS Quick Reference Guide", (2018), at: <a href="https://listings.pcisecuritystandards.org/documents/PCI\_DSS-QRG-v3\_2\_1.pdf">https://listings.pcisecuritystandards.org/documents/PCI\_DSS-QRG-v3\_2\_1.pdf</a>

<sup>&</sup>lt;sup>36</sup> Vantage has shared the Information Security Policy with Sustainalytics confidentially.

<sup>&</sup>lt;sup>37</sup> Vantage, "2022 ESG Report", at: https://vantage-dc.com/wp-content/uploads/2023/09/2022-ESG-Report-Vantage-Data-Centers.pdf

<sup>38</sup> Equator Principles, "About the Equator Principles", at: https://equator-principles.com/about-the-equator-principles/

<sup>&</sup>lt;sup>39</sup> Ratka, S. and Boshell, F. (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/

<sup>&</sup>lt;sup>40</sup> This excludes energy used for cryptocurrency mining, which was 110 terawatt hours in 2022.

International Energy Agency, "Data Centres and Data Transmission Networks", (2023), at: <a href="https://www.iea.org/energy-system/buildings/data-centres-and-data-transmission-networks#tracking">https://www.iea.org/energy-system/buildings/data-centres-and-data-transmission-networks#tracking</a>

<sup>&</sup>lt;sup>41</sup> Bangalore, S. et al. (2023), "Investing in the rising data center economy", McKinsey & Company, at: <a href="https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/investing-in-the-rising-data-center-economy">https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/investing-in-the-rising-data-center-economy</a>

<sup>&</sup>lt;sup>42</sup> Government of Canada, "Data centres", at: <a href="https://natural-resources.canada.ca/energy-efficiency/products/data-centres/13741">https://natural-resources.canada.ca/energy-efficiency/products/data-centres/13741</a>

<sup>&</sup>lt;sup>43</sup> European Commission, "Energy Consumption in Data Centres and Broadband Communication Networks in the EU", (2024), at: <a href="https://publications.jrc.ec.europa.eu/repository/handle/JRC135926#">https://publications.jrc.ec.europa.eu/repository/handle/JRC135926#</a>

<sup>&</sup>lt;sup>44</sup> US Department of Energy, "United States Data Center Energy Usage Report", (2016), at:

https://betterbuildingssolutioncenter.energy.gov/resources/united-states-data-center-energy-usage-report



improvements.<sup>45</sup> Nevertheless, considering the historical 20-40% annual increase in energy use in large data centres, global data centre energy consumption is still expected to increase over the next few years, but the long-term trends remain uncertain.<sup>46</sup>

In the US, the federal government promotes energy efficiency in data centres through different initiatives, such as the Center of Expertise for Energy Efficiency in Data Centers, which provides technical support, tools, analysis and best practices for energy efficiency projects in data centres. A7,48 The Energy Star programme also offers options for data centres to improve the energy efficiency of facilities and equipment. Denote the government aims to achieve 600 petajoules of energy savings by 2030 compared to the baseline year of 2018, with 90% of Canada's electricity expected to be generated through renewable and non-GHG emitting resources by 2030. To achieve this, Canada has developed the Energy-Efficient Buildings Research, Development and Demonstration Program to promote energy-efficient building construction and design. In the EU, the European Commission revised its Energy Efficiency Directive in 2021 to require owners and operators of data centres larger than 500 kW to report energy efficiency data beginning May 2024 and mandate data centres with a total rated energy input greater than 1 MW to utilize waste heat and other waste heat recovery applications when feasible.

In this context, Sustainalytics considers Vantage's investments aimed at improving the energy efficiency and PUE of data centres as contributing to reducing the industry's energy footprint, thereby generating positive environmental impacts.

#### **Contribution to SDGs**

The Sustainable Development Goals were adopted in September 2015 by the United Nations General Assembly and form part of an agenda for achieving sustainable development by 2030. The instruments issued under the Framework are expected to help advance the following SDG and target:

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

#### Conclusion

Data Centers has developed the Vantage Green Finance Framework, under which it intends to issue green bonds and obtain green loans, and use the proceeds to finance expenditures related to the design, construction and completion of data centres in the US, Canada, UK, Ireland, Germany, Switzerland, Poland, Italy and South Africa. Sustainalytics considers that the eligible projects are expected to provide positive environmental impacts.

The Framework outlines a process for tracking, allocation and management of proceeds, and make commitments for reporting on allocation and impact. Sustainalytics believes that the Framework is aligned with the overall sustainability performance of Vantage Data Centers and that the green use of proceeds will contribute to the advancement of UN Sustainable Development Goal 7. Additionally, Sustainalytics is of the opinion that Vantage Data Centers has adequate measures to identify, manage and mitigate environmental and social risks commonly associated with the eligible projects.

<sup>&</sup>lt;sup>45</sup> Knight, W. (2020), "Data Centers Aren't Devouring the Planet's Electricity—Yet", Wired, at: <a href="https://www.wired.com/story/data-centers-not-devouring-planet-electricity-yet/">https://www.wired.com/story/data-centers-not-devouring-planet-electricity-yet/</a>

<sup>&</sup>lt;sup>46</sup> International Energy Agency, "Data Centres and Data Transmission Networks", (2023), at: <a href="https://www.iea.org/energy-system/buildings/data-centres-and-data-transmission-networks#tracking">https://www.iea.org/energy-system/buildings/data-centres-and-data-transmission-networks#tracking</a>

<sup>&</sup>lt;sup>47</sup> US Department of Energy, Berkeley Lab Center of Expertise for Energy Efficiency in Data Centers, "Who We Are", at: <a href="https://datacenters.lbl.gov/who-we-are">https://datacenters.lbl.gov/who-we-are</a>

<sup>48</sup> US Department of Energy, "Energy Efficiency in Data Centers", at: https://www.energy.gov/eere/femp/energy-efficiency-data-centers

<sup>&</sup>lt;sup>49</sup> US Environmental Protection Agency, "ENERGY STAR Expands Efforts to Improve Energy Efficiency of US Data Centers", (2021), at: <a href="https://www.epa.gov/newsreleases/energy-star-expands-efforts-improve-energy-efficiency-us-data-centers">https://www.epa.gov/newsreleases/energy-star-expands-efforts-improve-energy-efficiency-us-data-centers</a>

<sup>50</sup> Energy Star, "Data Centers", at: https://www.energystar.gov/products/data\_centers

<sup>&</sup>lt;sup>51</sup> Government of Canada, "Sustainable Development Goal 7: Affordable and Clean Energy", at: <a href="https://www.canada.ca/en/employment-social-development/programs/agenda-2030/afforadable-clean-energy.html">https://www.canada.ca/en/employment-social-development/programs/agenda-2030/afforadable-clean-energy.html</a>

<sup>&</sup>lt;sup>52</sup> Council of the European Union, "Proposal for a Directive of the European Parliament and of the Council on Energy Efficiency (recast)", (2023), at: <a href="https://data.consilium.europa.eu/doc/document/ST-7446-2023-INIT/en/pdf">https://data.consilium.europa.eu/doc/document/ST-7446-2023-INIT/en/pdf</a>



Based on the above, Sustainalytics is confident that the Company is well positioned to issue green bonds and obtain green loans and that the Framework is robust, transparent and in alignment with the four core components of the Green Bond Principles 2021 and Green Loan Principles 2023.



## Disclaimer

#### Copyright ©2024 Sustainalytics, a Morningstar company. All rights reserved.

The information, methodologies, data and opinions contained or reflected herein are proprietary of Sustainalytics and/or content providers, and may be made available to third parties only in the form and format disclosed by Sustainalytics. They are not directed to, or intended for distribution to or use by India-based clients or users and their distribution to Indian resident individuals or entities is not permitted.

They are provided for informational purposes only and (1) shall not be considered as being a statement, representation, warranty or argument either in favor or against the truthfulness, reliability or completeness of any facts or statements that the issuer has made available to Sustainalytics for the purpose of this deliverable, in light of the circumstances under which such facts or statements have been presented; (2) do not constitute an endorsement of any product, project, investment strategy or consideration of any particular environmental, social or governance related issues as part of any investment strategy; (3) do not constitute investment advice, financial advice, or a prospectus, nor represent an "expert opinion" or "negative assurance letter" as these terms are commonly understood or defined by any applicable legislation; (4) are not part of any offering and do not constitute an offer or indication to buy or sell securities, to select a project or make any kind of business transactions; (5) do not represent an assessment of the issuer's economic performance, financial obligations nor of its creditworthiness; (6) are not a substitute for professional advice; (7) past performance is no guarantee of future results; (8) have not been submitted to, nor received approval from, any relevant regulatory body; (9) have not and cannot be incorporated into any offering disclosure, unless otherwise agreed in writing.

These are based on information made available by the issuer and therefore are not warranted as to their merchantability, completeness, accuracy, up-to-datedness or fitness for a particular purpose Sustainalytics has not independently verified any such information or data. The deliverables are provided "as is" and reflect Sustainalytics' opinion at the date of their elaboration and publication. Sustainalytics does not undertake any obligation to update or revise any of the statements in the deliverable to reflect events, circumstances, changes in expectations which may occur after the date of the opinion or any statements included in the opinion. Neither Sustainalytics/Morningstar nor their content providers accept any liability from the use of the information, data or opinions contained herein or for actions of third parties in respect to this information, in any manner whatsoever, except where explicitly required by law. Sustainalytics does not assume any responsibility shall the bond default. Any reference to content providers' names is for appropriate acknowledgement of their ownership and does not constitute a sponsorship or endorsement by such owner. A list of our content providers and their respective terms of use is available on our website. For more information, visit <a href="https://www.sustainalytics.com/legal-disclaimers">https://www.sustainalytics.com/legal-disclaimers</a>.

Sustainalytics may receive compensation for its ratings, opinions and other deliverables, from, among others, issuers, insurers, guarantors and/or underwriters of debt securities, or investors, via different business units. Sustainalytics believes it has put in place appropriate measures designed to safeguard the objectivity and independence of its opinions. For more information, visit <a href="mailto:Governance Documents">Governance Documents</a> or contact <a href="mailto:compliance@sustainalytics.com">compliance@sustainalytics.com</a>.

This deliverable, in particular the images, text and graphics contained therein, and the layout and company logo of Sustainalytics are protected under copyright and trademark law. Any use thereof shall require express prior written consent. Use shall be deemed to refer in particular to the copying or duplication of the opinion wholly or in part, the distribution of the opinion, either free of charge or against payment, or the exploitation of this opinion in any other conceivable manner.

The issuer is fully responsible for certifying and ensuring compliance with its commitments, for their implementation and monitoring.

# **About Sustainalytics, a Morningstar Company**

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.

For more information, visit www.sustainalytics.com

Or contact us contact@sustainalytics.com













