# **2022** Sustainability Report

Sabey Data Centers

For any questions related to the Sustainability Report, please contact: SDCCompliance@sabey.com









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### A Message From Leadership

Hello, and welcome to the Sabey Data Centers 2022 Sustainability Report. Let's keep the Sabey Data Centers Sustainability Goal – our bottom line – up front:

By 2029, we will double our 2021 MW of IT capacity under management and at the same time eliminate carbon emissions across all Scope 1 and 2 categories.

How are we doing?

## Measured our emissions to identify the best path forward

Our CDP score increased - in 2022, Sabey submitted a response to the CDP's Climate Change Questionnaire, receiving a score in the "Management" tier, meaning Sabey is taking coordinated action on climate issues.

In 2022, Sabey submitted ESG data to GRESB's Real Estate Assessment and Infrastructure Assessment and received a 4-star rating on both assessments.

#### Eliminated emissions resulting from inefficiency

In 2022, seven of Sabey's data center buildings received ENERGY STAR building certifications.

Three of the buildings were awarded a score of 99 points, and another facility earned 100 points – the highest possible score on ENERGY STAR's 1–100 scale.

#### Decreased emissions with power generated by renewable sources

Sabey's net GHG emissions decreased by 15% in 2022 due to renewable energy purchases.

## Led change within the community of responsible energy users

Sabey partnered with many organizations tackling climate change and decarbonization including Clean Energy Buyers Alliance (CEBA), The Department of Energy (DOE), The Environmental Protection Agency (EPA), The Climate Pledge, the Science Based Targets initiative (SBTi), CDP, EcoVadis, GRESB, Climate Smart, and, of course, our data center customers.

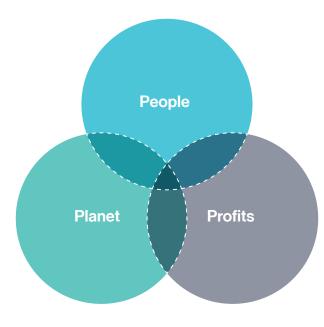
Thank you!

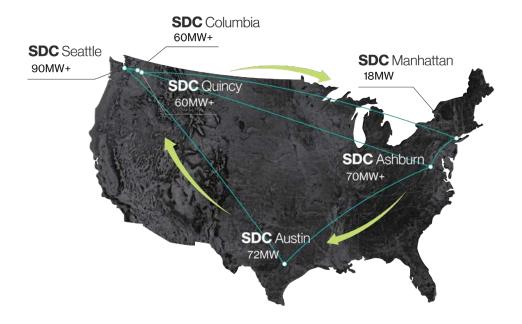


Rob Rockwood President Sabey Data Centers

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### **Our Commitment**





Sabey Data Centers is committed to being an industry leader in sustainability. Focusing on the triple bottom line of people, planet, profits, Sabey builds and maintains energy efficient data centers that reduce impact on the environment and align with our customer's renewable energy and/or carbon-free requirements. Sabey owns and operates six data center campuses across Washington, Virginia, and New York. The entire data center portfolio currently includes 18 buildings. Our data center campus in Texas is currently under construction and projected to be operational by Q1 2024.

## **United Nations Sustainable Development Goals**

Sabey uses the United Nations Sustainable Development Goals (SDGs) to guide our business practices. Sabey has targeted nine SDGs to guide our sustainability efforts. Sabey builds, designs, and operates highly energy efficient data centers (SDG 9, SDG 11, and SDG 12), naturally aligning us to combat climate change (SDG 13). Our business model is to provide low-cost, renewable energy (SDG 7) to our customers whenever possible. Many of our utility providers in Washington source their energy from hydroelectricity. These utilities take great care in protecting the wildlife and plant life in the surrounding rivers and tributaries (SDG 14 and SDG 15). Water is a critical resource for all life, and our business seeks to use water responsibly by recycling industrial water and using wastewater for irrigation (SDG 6 and SDG 15). Sabey partners with a myriad of organizations to meet these goals (SDG 17), including partnerships with our utilities, customers, and other external organizations seeking to be responsible stewards of our planet.



2022 Sustainability Report 6 CLEAN WATER AND SANITATION **9** INDUSTRY, INNOVATION AND INFRASTRUCTURE AFFORDABLE AND Clean Energy SUSTAINABLE CITIES AND COMMUNITIES 13 CLIMATE ACTION RESPONSIBLE CONSUMPTION AND PRODUCTION 15 LIFE ON LAND 17 PARTNERSHIPS FOR THE GOALS 14 LIFE BELOW WATER

## Servers Run Inside, Salmon Run Outside

As it developed abandoned farmland in Tukwila, WA into a plant for Boeing in 1986, Sabey Corporation took note of the camouflaged Riverton Creek that ran through the property and emptied into the Duwamish River. Humbled by the rich ecology, native culture, and Seattle history flowing between that river's banks, Sabey took special care to preserve the habitat by rehabilitating the creek. Community and sustainability are values that run deep in our organization.

Decades later, the development has transitioned to Sabey's SDC Seattle, a premier data center campus and one of the largest on the West Coast. Building upon our original commitment to the creek over the years, we now run a mini-hatchery and host annual educational events surrounding the release of the fry into the creek.

Salmon are an indicator of the quality of marine habitats, so we were thrilled to witness our largest salmon run to date in the winter of 2021. Knowing these fish were returning after being released by our colleagues 4-5 years ago was a fulfilling reward and a humble reminder of their importance as a symbol to the native community.



#### **Sustainability Initiatives**

## **Organizational Involvement**



#### ENERGY STAR

Sabey Data Centers is a proud ENERGY STAR Partner that consistently ranks at the very highest levels for building certifications by meeting strict EPA energy performance standards. A minimum score of 75 signifies that a building outperforms at least 75% of similar data centers, yet Sabey Data Centers routinely score up to 100 on the scale.



#### **Green Lease Leaders**

Sabey received Gold recognition from the Green Leader Leaders program. The Green Lease Leaders program recognizes forward-thinking companies who foster high-performance by incorporating both energy efficiency and sustainability into its operating requirements.



#### Better Buildings Challenge

The U.S. DOE Better Buildings Challenge is aimed at reducing energy use throughout businesses' portfolios by at least 20% over 10 years. Sabey has improved energy performance by 42% from a 2014 baseline, far surpassing this goal and was recognized as the Highest Energy Saving Data Center Operator by the DOE in 2017.



#### Better Climate Challenge

Sabey Data Centers signed on to the Better Climate Challenge committing to a 50% reduction in GHG emissions across their 3.8 million-square-foot portfolio over 10 years.



### **Sustainability Initiatives**

# **Organizational Involvement**



#### Science Based Targets initiative

Sabey has committed to set a portfolio-wide carbon emissions target to meet the most ambitious aim of the Paris Agreement – to limit global temperature rise to 1.5 degrees Celsius above pre-industrial levels. Our goal and method was validated by the Science Based Targets initiative (SBTi).



#### The Climate Pledge

Sabey is a signatory to The Climate Pledge, a collaborative initiative co-founded by Amazon and Global Optimisms with a commitment to reach net-zero carbon by 2040.



#### GRESB & Clean Energy Buyers Alliance

Sabey submits comprehensive annual reports through GRESB, and is an active member of the Clean Energy Buyers Alliance (CEBA).



#### EcoVadis

Sabey Data Centers was awarded a Silver EcoVadis medal, meaning we are ranked among the top 25% of Global Companies Social Responsibility.



#### CDP

Sabey submits annual reports to CDP's Climate Change Questionnaire. Customers can request access to Sabey's CDP response through CDP's online portal.





# **Sustainable Building Certifications**

|                       |                      | ENERGY STAR<br>Certified |
|-----------------------|----------------------|--------------------------|
| SDC Ashburn           | Building B           | <b>7</b> 95/100          |
|                       | Building C           | <b>7</b> 94/100          |
| SDC Columbia          | Building D 💋 100/100 |                          |
| SDC Quincy            | Building A           | <b>7</b> 99/100          |
|                       | Building B           | <b>7</b> 99/100          |
|                       | Building C           | <b>7</b> 99/100          |
| SDC Seattle -<br>East | Building 4           | <b>7</b> 96/100          |



### **Pledges to Net-Zero Carbon Emissions**

Sabey has made ambitious commitments to reach net-zero carbon emissions across our Scope 1 and Scope 2 emissions. According to the <u>SBTI Corporate Net-Zero Standard</u>, net-zero is defined as "reducing Scope 1, 2, and 3 emissions to zero or residual level..., [and] neutralizing any residual emissions...." Pathways to reach net-zero include using renewable energy mechanisms (like RECs and vPPAs).



#### Scope 1

Direct emissions from operations. Specifically diesel emissions from backup generators, and fugitive emissions from HVAC refrigerants



Indirect emissions from purchased electricity. Specifically purchased electricity used to power data center infrastructure.

#### Scope 3

All other indirect emissions, including indirect emissions from tenant IT equipment.

### Sabey's Most Ambitious Goal

Sabey Data Centers has committed to be net-zero carbon emissions by 2029 across all Scope 1 and Scope 2 emissions. Scope 3 emissions will be measured and aggressively reduced through various internal activities.



# Science Based Target initiative (SBTi)

In 2021, Sabey's net-zero goals were validated by the Science Based Target's initiative. Netzero targets are considered 'science-based' "if they are in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement – limiting global warming to well-below 2 degrees Celsius above pre-industrial levels and pursuing efforts to limit warming to 1.5 degrees Celsius," (SBTi). Sabey is considered a "Small and Medium-Sized Enterprise" (SME) by the SBTi. As a SME, Sabey's science-based target was submitted and validated through a streamlined route that allowed Sabey to select from one of two predefined target options.

Sabey's science-based target: "Sabey commits to reduce absolute Scope 1 and Scope 2 GHG emissions 50% by 2030 from a 2018 base year, and to measure and reduce its Scope 3 emissions."

Through SBTi, Sabey is required to publicly report portfolio-wide GHG emissions and progress against targets on an annual basis.



DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

### The Department of Energy's (DOE) Better Climate Challenge

Sabey signed on to the <u>Better</u> <u>Climate Challenge</u>, committing to a 50% reduction in Scope 1 and Scope 2 GHG emissions across the entire portfolio over 10 years. Sabey must meet the 50% reduction target without using GHG offsets and is required to report Scope 1 and Scope 2 GHG emissions annually.



### **The Climate Pledge**

Sabey joined <u>The Climate Pledge</u>, committing to be net-zero carbon by 2040, reaching the goals of the Paris Agreement 10 years early.

The three principal requirements of The Climate pledge are 1) annual reporting of emissions; 2) carbon elimination through efficiency, renewable energy, and materials reductions; and, 3) neutralizing any remaining emissions with credible offsets.



## **Roadmap to Net-Zero**

As Sabey's business grows, so does our carbon footprint. Our goal is to change that relationship – by 2029, we plan to reduce our Scope 1 and Scope 2 carbon emissions to net-zero while our business continues to grow. Sabey follows three principals as we pursue net-zero carbon:

- 1. Annual reporting of emissions;
- 2. Carbon elimination through energy efficiency, renewable and/or carbon-free energy, and materials reductions;
- 3. Neutralizing any remaining emissions with credible offsets.

**Emissions reduction pathways** 

Sabey will focus on the following areas:

### Scope 1

- Transition to green fuels: Transition away from diesel fuel for backup generators as alternatives become available and reliable. Alternatives to diesel fuel may include natural gas or renewable diesel;
- Reduce fugitive HVAC emissions: Manage and reduce fugitive emissions from HVAC refrigerants by working directly with our HVAC service providers;
- **Offset:** Carbon offsets may be procured to "offset" any remaining Scope 1 emissions.

### Scope 2

- Energy efficiency: Manage and improve overall energy efficiency throughout all data centers to reduce energy consumption, where possible. Power Utilization Effectiveness ("PUE") is monitored across all of our managed data centers;
- Renewable energy: Invest in renewable energy through Renewable Energy Certificates (RECs), purchase of renewable energy through utilities, and/or through Power Purchase Agreements (PPAs).
  - Starting in 2023, Sabey will reduce our Scope 2 emissions by 21% from a 2018 base year. We will continue to reduce our Scope 2 emissions by 4.2% each year thereafter until 2029 when we will reduce our Scope 2 emissions by 100%. Our current strategy to reduce our Scope 2 emissions is to procure RECs, but we are iteratively exploring other options, including on-site renewable energy and/or VPPAs.

## Scope 3

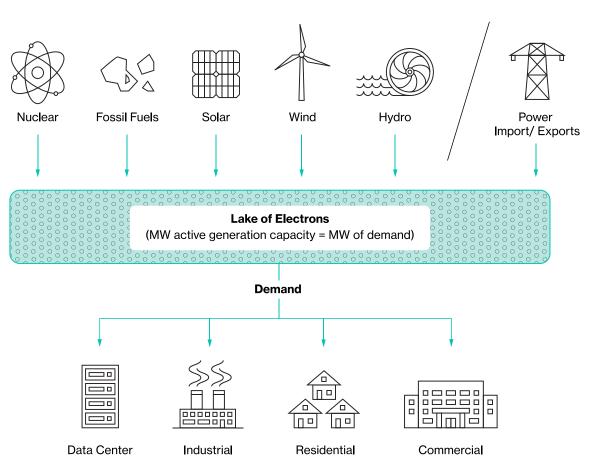
- Downstream leased assets: Assist our customers with understanding the energy consumption from their IT equipment (servers). Upon request, help procure renewable energy to offset their emissions;
- Upstream supply chain: Engage with upstream supply chain to reduce emissions. Upstream supply chain emissions include: purchased goods and services – including embodied carbon in building materials, waste generated in operations, business travel, and employee commuting.

## **Utility Fuel Mix**

What is a fuel mix?

The electricity our data centers use is generated from a mix of different energy sources, referred to as a fuel mix. A fuel mix represents the ratio of different energy sources, like hydro, nuclear, or coal. The fuel mixes vary<sup>1</sup> across our data center portfolio.

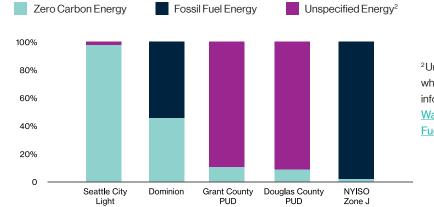
Figure 1 illustrates how no single energy source powers our data centers. The various energy sources create a "lake of electrons" which then generate power. **Figure 1: Fuel Mix Diagram** 



<sup>1</sup> It can be difficult to get accurate fuel mix data – some utilities report their annual average fuel mixes, while others do not. In instances where utilities do not report their annual fuel mix data, data can be retrieved from the Independent System Operator ("ISO") or from <u>EPA's Emissions and Generation Resource Integrated Database (eGRID)</u>. Fuel mix data can vary depending on the granularity of the data available. Because of this, the fuel mix data that we collect may not accurately represent the actual electricity consumed at our data centers.



#### Figure 2: 2021 Fuel Mix



<sup>2</sup>Unspecified energy refers to power purchases where the generation facility and fuel source information is not known. This term comes from the <u>Washington State Department of Commerce's</u> <u>Fuel Mix Disclosures.</u>

## **Greenhouse Gas (GHG) Emissions Accounting**

Sabey follows the operational control approach under the GHG Protocol Corporate Accounting and Reporting Standard. Please see Appendix C for additional details on Sabey's GHG Emissions Accounting Methodology.

Sabey is a member of the Clean Energy Buyers Alliance (CEBA) and the Future of Internet Power (FoIP), organizations that provide data center specific guidance for GHG reporting and accounting. Sabey's data center spaces follow guidance from the FoIP that distinguishes between Sabey's Scope 2 emissions and our tenant's Scope 2 emissions.

Sabey's Scope 2 emissions are from purchased electricity that power data center infrastructure, and our tenant's Scope 2 emissions are from purchased electricity used to power their IT equipment ("Critical Load Power").

Upon request, Sabey will provide tenants with RECs for their Critical Load Power (i.e. electricity from IT equipment) as a component of Sabey's compensated services.



Infrastructure

Electricity

Equipment



# What is a metric ton of $CO_2e$ ?

1 metric ton of CO2e equals



**113 gallons** of gasoline consumed

| 121,643     |  |
|-------------|--|
| 121,043     |  |
| martphones  |  |
| mar iphones |  |
| charged     |  |

44

**46** BBQ Propane Tanks

¢



**2,564 miles** driven by an average gasoline-powered car

# Net emissions decreased by 15% in 2022 due to renewable energy purchases.

Our total carbon emissions<sup>3</sup> have increased each year since 2018, until 2022. In 2022, overall carbon emissions decreased by 15% due to renewable energy purchases.

Our business has now obtained its Radicle Climate Smart Certification, which provides third-party review of our GHG emissions inventory. Learn more about this latest achievement at: (https://radiclebalance.com/)



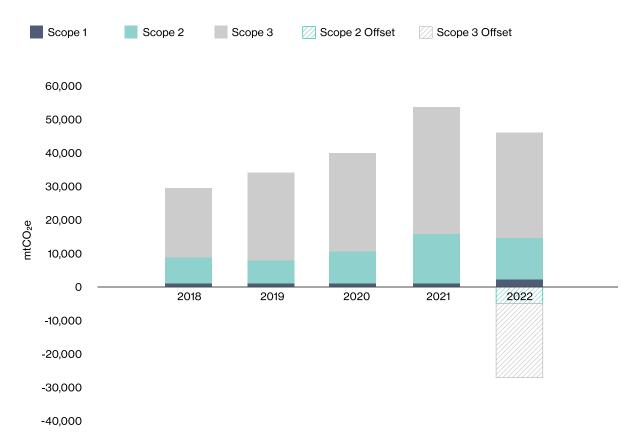


Figure 3: Yearly Carbon Emissions, by Scope

<sup>3</sup> Carbon emissions reported in the "GHG Emissions: 2018-2022" section are market-based carbon emissions and are reported in metric tons of  $CO_2$  equivalent (mtCO\_2e). The unit mtCO\_2e represents the number of metric tons of  $CO_2$  emissions with the same global warming potential as one metric ton of another greenhouse gas.

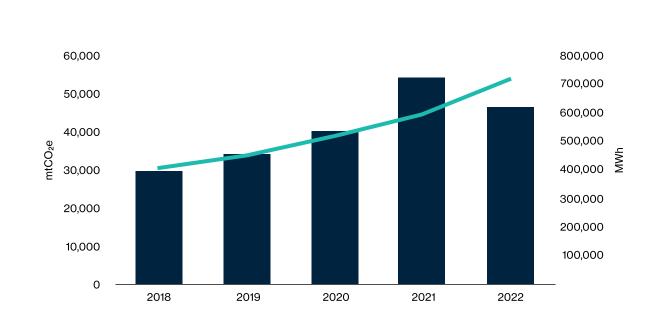
#### GHG Emissions: 2018-2022

# Net emissions decreased in 2022 despite consistent business growth.

Electricity use continues to increase with business growth. Increased electricity use has historically been correlated with increased emissions, but that relationship changed in 2022.

#### Figure 4: Yearly Carbon Emissions & Electricity Use

Total Emissions (mtCO<sub>2</sub>e) Total Electricity (MWh)



### Appendix

### A. GHG Emission Factors and Sources

(Location-based and Market-based)

| Account<br>Methodology  | Site/Utility   | 2022 Emissions<br>Factor       | Source  |  |
|---|--|--------------------------------|---|--|
| Location-based  | SDC Ashburn -<br>Dominion Power (Virginia)   | 0.323 mtCO <sub>2</sub> e/MWh  |   |  |
|   | SDC Quincy -<br>Grant County PUD   | 0.111 mtCO <sub>2</sub> e/MWh  | Administration (EIA), 2021. 'U.S. Electric Power Industry Estimated<br>Emissions by State, 1990-2019'. Divided value by 'Net Generation by<br>State by Type of Producer by Energy Source, 1990-2019'. |  |
|   | SDC Columbia -<br>Douglas County PUD   | 0.111 mtCO <sub>2</sub> e/MWh  |   |  |
|   | SDC Manhattan - Con-<br>solidated Edison (TDSP)<br>and Calpine Energy (Retail<br>Electric Supplier)                          | 0.202 mtCO <sub>2</sub> e/MWh  |   |  |
|   | SDC Seattle East & West -<br>Seattle City Light  | 0.111 mtCO <sub>2</sub> e/MWh  |   |  |
| Market-based Dominion Power (Virginia) 0.290 mtCO <sub>2</sub> e/MWh and Contracted and Con | Dominion Energy, Sustainability report, Dominion Energy Virgina<br>and Contracted Assests Owned Generation Carbon Emissions. |                                |   |  |
|   |  | 0.184 mtCO <sub>2</sub> e/MWh  | Grant County Public Utility District  |  |
|   |  | 0 mtCO <sub>2</sub> e/MWh      | Emissions and Generation Resource Integrated Database (eGRID), Sheet 5, Balancing Authority PUD No. 1 of Douglas County   |  |
|   | solidated Edison (TDSP)<br>and Calpine Energy (Retail  | 0.3707 mtCO <sub>2</sub> e/MWh | Emissions and Generation Resource Integrated Database (eGRID),<br>Sheet 6, Subregion: NYCW  |  |
|   | IGE, IGW - Seattle City Light  | 0 mtCO <sub>2</sub> e/MWh      | Utility is carbon neutral, and directed customers to zero out carbon emissions.   |  |

### Appendix

### B. Fuel Mix Data for SDC Campuses (2021 Data - most recently available)

|                       | Fuel Type        | Percent |
|-----------------------|------------------|---------|
|                       | Hydro            | 17.38%  |
| Grant County PUD      | Nuclear          | 0.12%   |
| Grant County PUD      | Wind             | 0.01%   |
|                       | Unspecified      | 82.49%  |
|                       | Hydro            | 13.75%  |
| Douglas               | Nuclear          | 1.77%   |
| County PUD            | Wind             | 0.07%   |
|                       | Unspecified      | 84.41%  |
|                       | Biogas           | 1.09%   |
| o                     | Hydro            | 86.29%  |
| Seattle<br>City Light | Nuclear          | 4.62%   |
|                       | Wind             | 4.71%   |
|                       | Unspecified      | 3.29%   |
|                       | Nuclear          | 35.49%  |
|                       | Coal             | 10.49%  |
|                       | Biomass          | 1.18%   |
| Dominion              | Oil & Gas        | 45.79%  |
| Dominion              | Solar            | 2.26%   |
|                       | Wind             | 0.06%   |
|                       | Pumped Storage   | 3.88%   |
|                       | Hydro            | 0.85%   |
|                       | Oil & Gas        | 92.00%  |
| NYISO, Zone J         | Hydro            | 2.00%   |
| 141130, 2011e J       | Pumped Storage   | 5.00%   |
|                       | Other Renewables | 1.00%   |