

FISCAL YEAR 2018

# CARBON FOOTPRINT

*Our Journey Toward a More Sustainable World*

A person is standing on a rocky shore, looking out at a large body of water. In the background, there are mountains under a cloudy sky. The entire image is overlaid with a green-to-yellow gradient and a yellow geometric pattern of lines and a circle.

*Sustainability is  
key to Booz Allen's  
purpose—empowering  
people to change  
the world.*

# OUR PEOPLE ARE CHANGING THE WORLD FOR THE BETTER

*Booz Allen is committed to internal operations, client solutions, and community involvement that advance the health and resilience of the world we live in. Our people make a difference where we work and live, harnessing the power of bold thinking and collective ingenuity to find and solve local, regional, and global challenges.*

*Our sustainability efforts encompass three key areas:*

## BOOZ ALLEN SUSTAINABILITY



### OPERATIONS

We are guided by our **commitment to sustainability**, holding ourselves accountable with an ISO 14001-compliant environmental management system and dedicated Sustainability Program Management Office.

### CLIENT SOLUTIONS

Thousands of employees in our Infrastructure, Energy, and Environment Communities of Practice innovate environmental, energy, and sustainability solutions for clients across defense and civil markets.

### PEOPLE

We empower employees of all backgrounds to care for our environment through employee-led Green Office Teams.

# MANAGING OUR CARBON FOOTPRINT

## WHAT'S IN THE REPORT

This report focuses on activities in fiscal year (FY) 2018 (April 1, 2017 through March 31, 2018). It includes greenhouse gas (GHG) emissions data related to Booz Allen's facilities, business travel, and employee commuting. All emissions are Scopes 2 and 3<sup>1</sup> and are expressed in metric tons (MT) of carbon dioxide equivalents (CO<sub>2</sub>e). Appendices to the report detail our methodology for calculating emissions and our carbon-related goals and targets.

This report also highlights examples of how we help reduce carbon impact beyond our operations—through our client solutions and employee action.

## WHAT'S NEW FOR FY2018

In keeping with our commitment of continuous improvement, we expanded our business travel calculations to include emissions related to employee hotel stays. This data was not available in previous reporting years.

Booz Allen's FY2018 calculations were independently verified by Bureau Veritas North America.

## SUMMARY OF FY2018 RESULTS

Exhibit 1 shows Booz Allen's FY2018 carbon footprint was 58,438.47 MTCO<sub>2</sub>e. Emissions from our facilities decreased by 7.12 percent (1,192.88 MT CO<sub>2</sub>e) when compared with FY2017, reflecting our continued effort to reduce emissions per square foot of facility space. Business travel emissions increased by 29.84 percent (8,156.99 MT CO<sub>2</sub>e). The addition of hotel stay-related emissions accounted for more than half of the increase. Employee commuting emissions increased by 17.33 percent (1,091.67 MT CO<sub>2</sub>e).

In total, Booz Allen's carbon footprint increased by 15.99 percent (8055.78 MT CO<sub>2</sub>e) when compared with FY2017. We anticipate short-term fluctuations from improving our data capture will give way to the long-term benefit of a more complete carbon footprint calculation and a more robust understanding of how we can meaningfully reduce our environmental impact.

Exhibit 1. FY2018 Booz Allen Carbon Footprint

CATEGORY	EMISSIONS (MT CO <sub>2</sub> e)					
	CY12	CY13	CY14	FY16	FY17	FY18
<b>SCOPE 2</b>						
Facilities	20,641.36	22,374.93	21,088.69	18,382.82	16,748.85	<b>15,555.97</b>
<b>SCOPE 3</b>						
Business Travel	29,107.90	23,480.60	27,099.99	27,460.32	27,335.81	<b>35,492.80<sup>2</sup></b>
Employee Commuting	N/A	N/A	N/A	4,250.04	6,298.03	<b>7,389.70</b>
<b>TOTAL</b>	<b>49,749.26</b>	<b>45,855.53</b>	<b>48,188.68</b>	<b>50,093.17</b>	<b>50,382.69</b>	<b>58,438.47</b>
<i>% Change from Prior Year</i>		-7.83%	5.09%	3.95%	0.58%	<b>15.99%</b>

<sup>1</sup> Booz Allen has no reportable Scope 1 emissions; we do not own or manage any of the buildings we occupy, nor do we own a fleet of vehicles.

<sup>2</sup> Booz Allen's FY2018 business travel footprint includes emissions related to employee hotel stays. This data was not available before FY2018 and is not included in prior years' calculations.

*We have continuously and dramatically reduced our Scope 2 emissions intensity over the last 4 years, while exceeding our goal of a 15 percent CO<sub>2</sub>e decrease for both employees and square footage.*

**CO<sub>2</sub>e EMISSIONS FROM CY2014 TO FY2018**



**36%**  
REDUCTION  
PER EMPLOYEE



**20%**  
REDUCTION  
PER SQUARE FOOT

C.07.018.18B

*Our NexGen workplaces reflect sustainable office best practices, including natural light, reusable furniture, energy-efficient equipment, and use of recycled or recyclable materials.*

NATURAL LIGHT

COMPOSITE MATERIALS

ENERGY STAR-CERTIFIED EQUIPMENT

LEED-CERTIFIED BUILDING

REUSABLE FURNITURE

RECYCLED CARPET

# BOOZ ALLEN FACILITIES



## MANAGING OUR FOOTPRINT

Booz Allen’s U.S. and international real estate holdings comprise approximately 2.6 million square feet of leased space. We do not own or manage any of the buildings our employees occupy; however, we structure our space selection process, lease agreements, workspace design, and telework capabilities to minimize energy use and resulting GHG emissions.

## FY2018 GOALS

We established a baseline of the firm’s facilities-related emissions in calendar year (CY) 2014 and a goal of reducing these emissions by 15 percent per employee (measured in full-time equivalents, or FTE) and 15 percent per square foot by 2026.

We also pursue ongoing goals of increasing our LEED- and ENERGY STAR-certified space, reducing employees’ energy use, improving equipment efficiency, reducing materials consumption, and prioritizing recycled, recyclable, and compostable supplies for our offices and break rooms. See Appendix A for an overview of our goals and targets.

## FY2018 RESULTS

All our facilities emissions are Scope 2. They are calculated by estimating electrical consumption based on the number of occupied square feet in our domestic and international portfolio. See Appendix B for a more detailed explanation of our calculation methodology.

Exhibit 2 shows Booz Allen’s FY2018 facilities carbon footprint was estimated at 15,555.97 MT CO<sub>2</sub>e, representing a 7.12 percent decrease from our FY2017 footprint of 16,748.85 MT CO<sub>2</sub>e. Compared to the CY2014 baseline, emissions per employee decreased 36.28 percent and emissions per square foot decreased 20.02 percent. These results vastly exceed our reduction targets and reflect a continuous effort to improve efficiency and workplace mobility. In the coming months, we will be working to improve meter-based energy monitoring for our office spaces. We will also explore aggressive and appropriate new reduction targets to continue to challenge our operations and ensure continuous improvement.

Exhibit 2. FY2018 Booz Allen Facilities Emissions

CATEGORY	FACILITIES EMISSIONS (MT CO <sub>2</sub> e)					
	CY12	CY13	CY14	FY16	FY17	FY18
MT CO <sub>2</sub> e	20,641.36	22,374.93	21,088.69	18,382.82	16,748.85	<b>15,555.97</b>
% Change from Prior Year	-	8.40%	-5.75%	-12.83%	-8.89%	<b>-7.12%</b>

# BUSINESS TRAVEL AND COMMUTING

## MANAGING OUR FOOTPRINT

As a consulting firm, travel to support clients is key to our business. Our sustainability strategy focuses on minimizing nonessential travel, enabling workplace mobility, and facilitating low-carbon commuting options.

Our award-winning Way We Work strategy with hoteling options and office spaces close to key clients gives our people flexibility to work where they need to each day. We also work to locate offices near public transportation and educate employees on how their travel choices affect the environment.

## FY2018 GOALS

Our primary goals are to reduce employee miles in single-occupancy and high-emission vehicles, refine our commuting strategy, and increase employee use of hotels with sustainability programs. See Appendix A for more information about our goals and targets.

We continuously refine our strategy to achieve these goals. In FY2018, data scientists automated calculations from our annual employee commuting survey and provided insight on how, when, and why our people travel to and from work.

We plan to build on this data to determine if and how the firm can positively influence commuting patterns.

## FY2018 RESULTS

Business travel emissions include those associated with airline and rental car miles, hotel stays, and billable personal vehicle miles. Commuting emissions are those arising from travel to and from Booz Allen offices and client sites at the start and end of the workday.

Based on the available data, our FY2018 business travel and commuting emissions were 35,492.80 MT CO2e and 7,389.70 MT CO2e, respectively, as indicated in Exhibit 3. See Appendix B for a detailed explanation of how we calculated these emissions.

Data from hotel stays was a new addition in FY2018. This helped increase our reported emissions in the short term. However, we believe identifying and addressing data gaps is part of doing right by our sustainability commitment.

We are also working to establish a baseline of commuting emissions. Survey participation doubled for the second consecutive year in FY2018, making it difficult to draw definitive conclusions from the data.

Exhibit 3. FY2018 Booz Allen Business Travel and Commuting Emissions

CATEGORY	TRAVEL AND COMMUTING EMISSIONS (MT CO2e)					
	CY12	CY13	CY14	FY16	FY17	FY18
BUSINESS TRAVEL	29,107.90	23,480.60	27,099.99	27,460.32	27,335.81	<b>35,492.80</b>
% Change from Prior Year	-	-19.33%	15.41%	1.33%	-0.45%	<b>29.84%</b>
EMPLOYEE COMMUTING	N/A	N/A	N/A	4,250.04	6,298.03	<b>7,389.70</b>
% Change from Prior Year	-	-	-	-	48.19%	<b>17.33%</b>

*When Booz Allen employees book travel, they're provided with a carbon information summary that notes distance and total CO2 emissions. This allows a greater understanding of our individual and collective footprints.*



# BEYOND OUR OPERATIONS

## Client Solutions: National Park Service



### THE CHALLENGE

*The National Park Service (NPS) has one of the largest asset portfolios of any U.S. civilian agency.* Each year, the NPS must collect and monitor utility data from more than 29,000 buildings to report progress toward reducing energy and water consumption as well as GHG emissions. Given the magnitude of the dataset and the number of users entering data, the NPS needed a way to improve the quality and completeness of the information captured.



### THE SOLUTION

*Booz Allen identified two key process improvement goals:* (1) model missing data to ensure a complete dataset and (2) automate data review and validation. Drawing on our expertise in environmental and energy policy implementation and data analytics, the team developed a tool to model gaps in utility consumption information, validate the data accuracy, and correct errors.



### THE RESULT

*The NPS realized dramatic improvements in the quality and completeness of its dataset.* Complete, high-quality data benefits the bureau by enabling stakeholders to more accurately select energy and water conservation projects that will have the greatest impact on reducing utility consumption and GHG emissions. It also provides the NPS with insight into the areas that have the most significant gaps and errors, thereby enabling the NPS to better target its energy and water training and outreach efforts.



*In addition  
to managing our  
operational footprint, we  
provide innovative solutions  
to help our clients steward  
natural resources and  
empower our people to  
make a difference.*

# BEYOND OUR OPERATIONS

## *Employee Highlights: Second Chance Toys*

### KEEPING PLASTICS OUT OF LANDFILLS

*In 2018, Booz Allen employees collected 7,240 pounds of gently used plastic toys for reuse by organizations that care for children in need through a partnership with Second Chance Toys. Producing the same amount of plastic for new toys would lead to approximately 9.5 MT CO2 emissions.<sup>3</sup>*

### WHY PLASTIC TOYS?

*Plastic toys often end up in landfills because they comprise a mix of materials that cannot be separated out for recycling. However, given the durability of plastic, used toys typically show few signs of wear. Volunteers across the firm worked together to rescue unwanted toys from their homes, friends, and neighbors, clean them up to be “good as new,” and donate them to local organizations to provide children with years of continued play and learning.*

### PASSIONATE SERVICE

*In 2015, Booz Allen’s first Second Chance Toys collection was a small, local affair at the firm’s McLean, Virginia, headquarters. Since then, employees eager to change the world they live in have propelled the program into a nationwide annual campaign and a core component of the firm’s “Earth Month” activities.*

### 2018 MILESTONES

- + **21 Booz Allen locations** collected toys in 10 states and Washington, DC.
- + **1,810 toys** were donated, which will positively affect at least that many children.
- + **5,430 smiles** will be generated with each round of play, as estimated by Second Chance Toys.
- + **7,240 pounds of plastic** were kept out of landfills, as estimated by Second Chance Toys.

<sup>3</sup> 2.9 kg of CO2 for every kg of plastic produced. Source: Cushman-Roisin, B., & Tanaka Cremonini, B. (n.d.). Useful Numbers for Environmental Studies and Meaningful Comparisons. Retrieved July 31, 2018, from <http://www.dartmouth.edu/~cushman/books/Numbers/Chap1-Materials.pdf>

**21**  
OFFICE  
LOCATIONS



**5,400**  
SMILES  
GENERATED

**7,200**  
POUNDS OF  
PLASTIC

**1,800**  
TOTAL TOYS  
DONATED

*Our employees build community and sustainability through generosity and service. They see every challenge as an opportunity to find the problem and solve it.*

# APPENDIX A: FY18 SUSTAINABILITY GOALS

Table 1. FY2018 Sustainability Goals for Facilities

FACILITIES GOAL	TARGET	PROGRESS
INCREASE GREEN OFFICE SPACE	Convert leased office space to LEED and ENERGY STAR buildings	Ongoing
	Evaluate new and retrofit office space using green criteria	Ongoing
REDUCE EMISSIONS INTENSITY	Reduce emissions per employee full-time equivalent 15% by 2026	Down 36.28%
	Reduce emissions per square foot 15% by 2026	Down 20.02%
INCREASE EQUIPMENT EFFICIENCY	Procure only ENERGY STAR-certified laptops and IT equipment	Ongoing
	Increase virtualization of data center servers	Retired*
REDUCE EMPLOYEE ELECTRICITY USE	Implement cloud-first strategy across the firm	Ongoing
	Maintain Turn It Off program	Ongoing
	Optimize service lifecycle of IT equipment and tools	Ongoing
	Install power management software on all devices	Retired*
REDUCE WASTE	Recycle or donate decommissioned office furniture	85.45 tons donated for reuse in FY2018
	Streamline all office printing through managed print services (MPS)	Ongoing
	Use paper with at least 30% recycled content for MPS	Ongoing
USE GREEN OFFICE & KITCHEN SUPPLIES	Evaluate all core office supplies for recycled content and other green attributes	Ongoing
	Use only items with recycled content or compostable qualities in the firm's core kitchen supplies	Ongoing

\*This goal is complete as of FY2018 and may be removed from future reports.

Table 2. FY2018 Sustainability Goals for Business Travel and Commuting

BUSINESS TRAVEL GOAL	TARGET	PROGRESS
REDUCE MILES IN SINGLE-OCCUPANCY AND HIGH-EMISSION VEHICLES	Analyze employee travel behavior and improve strategies for communicating environmental impact	Ongoing
	Promote telework and hoteling programs among employees	Ongoing
	Negotiate and build awareness of deep discounts (up to 50%) for hybrid car rentals	Ongoing
	Increase employee participation in alternative transportation options	Ongoing
REFINE EMPLOYEE COMMUTING STRATEGY	Develop and track employee commuting carbon footprint and patterns	Ongoing
	Increase awareness of commuting programs and incentives	Ongoing
	Evaluate and improve onsite amenities for commuters	Ongoing
	Empower employee-led Green Office Teams to educate their offices on local commuting options	Ongoing
INCREASE EMPLOYEE USE OF GREEN HOTELS	Prioritize sustainability requirements when negotiating with hotels in our preferred hotel program	Ongoing
	Increase employee awareness about the impact of choosing sustainable hotels	Ongoing

*Among our FY18 sustainability goals is ensuring used office furniture is donated and stays out of the landfill.*

**FY2018 WASTE REDUCTION GOALS**



**84.5 TONS**  
OFFICE FURNITURE  
DONATED FOR REUSE

C.07.018.18C



# APPENDIX B: FY18 EMISSIONS CALCULATION METHODOLOGY

## FACILITIES

Booz Allen neither owns nor manages the buildings we occupy. Consequently, all facilities emissions fall within Scope 2. We calculate these emissions by estimating electrical consumption based on the number of occupied square feet in our domestic and international portfolio.

For both U.S. and international facilities, we used data from the U.S. Energy Information Administration's 2012 Commercial Buildings Energy Consumption Survey to determine the average kilowatt hours (kWh) of electricity buildings comparable to those in our portfolio consume per square foot each year. We then estimated our own kWh consumption by multiplying these national averages by the number of square feet in each Booz Allen facility. We then converted the resulting data from kWh to megawatts per hour (MWh) to facilitate further calculations.

For U.S. facilities, we used the greenhouse gas (GHG) emissions factors from the U.S. Environmental Protection Agency's (EPA) 2016 Emissions and Generation Resource Integrated Database to calculate each building's emissions (differentiated by region). The formula we used to calculate emissions is:

***GHG emissions = Electricity consumed (in MWh) x EPA regional GHG emissions factor***

We converted nitrogen dioxide and methane emissions to carbon dioxide equivalents (CO<sub>2</sub>e) using global warming potentials from the United Nations Intergovernmental Panel on Climate Change Fifth Assessment Report. For international facilities, we substituted EPA regional emission factors with International Energy Agency (IEA) CO<sub>2</sub> emissions factors specific to each country.

Our Scope 2 emissions methodology and calculations were verified by Bureau Veritas North America.

## BUSINESS TRAVEL AND COMMUTING

Our calculations include estimated emissions from employee business travel, which we define as work-related air travel, car rentals, billable personal miles, and hotel stays. These estimates were provided by travel providers, who work closely with us to track the environmental impact of each trip. We also estimate emissions associated with employees' commutes to and from work. Data on employee rail travel was not included in FY2018 calculations because recorded rail data represents a small portion of actual rail travel. All business travel and commuting emissions are Scope 3.

**Air Travel:** GHG Protocol emissions factors were used to estimate CO<sub>2</sub> emissions associated with all domestic and international flights recorded by our travel service provider. Flights were differentiated by length (long-, medium-, and short-haul), mileage, seat class, and type of aircraft.

A small minority of our employees were unable to make their travel plans using our travel service provider. Consequently, their data is not represented. In addition, the data does not reflect flights that were cancelled or rerouted, or changes in travel plans (e.g., some flights were not taken but remained in the system).

**Automobile:** Our main rental car agencies (i.e., National, Enterprise, Avis, and Hertz) used EPA Climate Leaders emissions factors to estimate CO<sub>2</sub>e emissions associated with domestic and international reserved car mileage. We receive this data in quarterly reports identifying miles traveled, vehicle class, type of fuel, duration of travel, and other key information.



Rental cars reserved by employees using other vendors or methods were not factored into the emissions estimate as this data was unavailable.

To determine billable miles recorded by employees on their personal vehicles, we divided employee reimbursements allocated to miles traveled for work engagements by the per diem rate for personal vehicle mileage. We then converted the reported automobile mileage into CO<sub>2</sub> emissions using GHG Protocol's tool for calculating CO<sub>2</sub> emissions from mobile sources.<sup>4</sup>

**Hotels:** For hotel reservations made with our travel service provider, we receive an annual report with the number of rooms, room nights, and country of each hotel stay. We use United Kingdom Government GHG Conversion factors for Company Reporting to convert the number of room nights per country to estimated CO<sub>2</sub>e emissions. A small minority (less than 5 percent) of hotel stays took place in countries for which there was no available emissions factor. These rooms were not included in the calculation.

**Employee Commuting:** We use data from our annual employee commuting survey (first launched in 2016) to estimate emissions from employees' commutes to and from Booz Allen offices and client sites at the start and end of each workday. The survey is voluntary and has traditionally experienced low participation rates, creating limitations in our ability to draw inferences from year-over-year trends. In FY2018, we used an aggressive communications campaign to double survey participation for the second consecutive year.

The survey captures a wide range of data on employees' daily commutes, including distance and mode of transportation. Using guidance provided by GHG Protocol, we converted the average daily commuting distance into annual estimates for each mode of transportation. We used the GHG Protocol<sup>5</sup> tool to determine the CO<sub>2</sub> emissions produced for each mode, then combined them to determine an aggregate commuting footprint.

Our Scope 3 emissions methodology and calculations were verified by Bureau Veritas North America.

<sup>4</sup> GHG Protocol, 2015. GHG Emissions from Transport or Mobile Sources, Version 2.6. Retrieved May 13, 2018 from <http://www.ghgprotocol.org/calculation-tools/all-tools>

<sup>5</sup> BGHG Protocol, 2013. Technical Guidance for Calculating Scope 3 Emissions. Category 7: Employee Commuting. Available for download at: <http://www.ghgprotocol.org/feature/scope-3-calculation-guidance> and is not included in prior years' calculations.

## **About Booz Allen**

For more than 100 years, business, government, and military leaders have turned to Booz Allen Hamilton to solve their most complex problems. They trust us to bring together the right minds: those who devote themselves to the challenge at hand, who speak with relentless candor, and who act with courage and character. They expect original solutions where there are no roadmaps. They rely on us because they know that—together—we will find the answers and change the world. To learn more, visit **BoozAllen.com**.

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